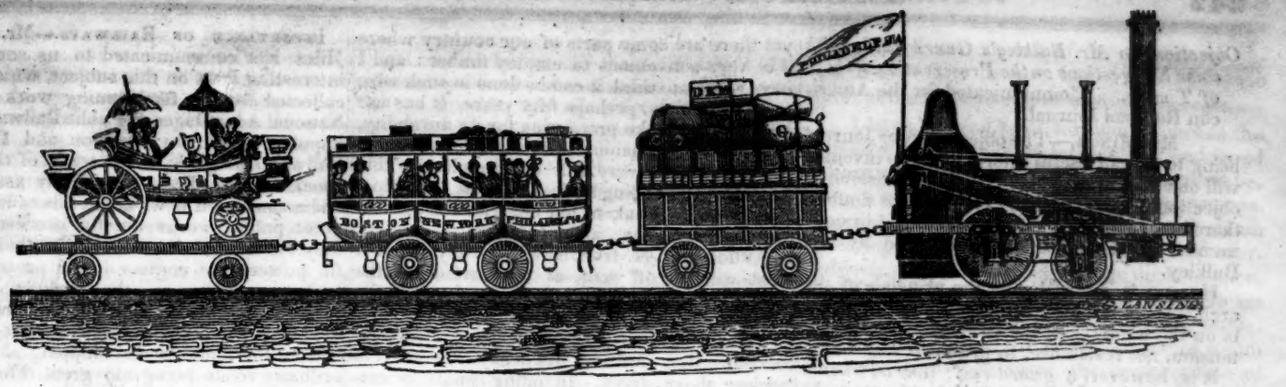

AMERICAN RAILROAD JOURNAL,
AND ADVOCATE OF INTERNAL IMPROVEMENTS.

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AMERICAN RAILROAD JOURNAL, &c.

NEW-YORK, APRIL 20, 1833.

☞ An advertisement will be found in our paper for a skilful Engineer to survey and construct a Railroad. Application may be made to the Editor of this Journal.

In this number of the Journal will be found a communication from J. L. SULLIVAN, Esq. upon the subject of the "New-York Guard Rail," a description, with engravings, of which was published in No. 14 of the present volume. Our impressions were, and still are, strong in favor of Mr. Bulkley's invention—yet from a want of knowledge in such matters, we solicited the opinion of those more experienced and better informed upon the subject, as we are desirous to make the Journal useful to those who are engaged in works of internal communication.

Note.—At the commencement of the fifth paragraph, for "It is not," read "Is it not," &c.

We have copied from the New-York American, a description of the village of "Little Falls," in this state, by BENJAMIN WRIGHT, Esq. than whom no gentleman living is better acquainted with its great advantages. It affords us much pleasure to learn that the superior advantages of that delightful village are to be brought into use. The proprietorship, we understand, has fallen into the hands of a gentleman of this city, who is preparing to construct dams and canals, which will turn to the best possible advantage the immense water-power of the Mohawk, which has so long been useless to the public, in consequence of its being owned by a foreigner, who would only *lease*. That day however is passed, and the water privileges are not only to be brought into the market, but the village is to be regularly laid out and improved, and it will, we predict, in a few years be one of the most extensive manufacturing places in the state.

PROVIDENCE AND STONINGTON RAILROAD.—We have been politely furnished with a report made by Capt. M'NEILL, of the preliminary surveys of the route for a Railroad from Providence, R. I. to Stonington, Conn., in continuation of the Boston and Providence Railroad. By a reference to the map, it will be seen that this route from Boston to Stonington, a distance of about 90 miles, varies but a trifle from a direct line. By this route the passage from New-York to Boston will be far less hazardous, and be performed in considerably less time, than by the present route in steamboats to Providence. We shall in a subsequent number give the Report entire.

UNDULATING RAILWAYS.—An interesting article will be found in our columns to-day, relative to a Railway upon a new plan, copied from the London Athenæum. The present appears, indeed, to be a period of discoveries. We would ask of our Railroad friends a discussion of this subject.

CANAL—CANAL FUNDS.—Mistakes in relation to the several boards and officers having charge of the canals and the canal funds, are of every day occurrence. The following brief statement on this subject may be useful to the public.

Canal Commissioners.—This is a board of canal commissioners consisting of five members, of whom three are designated as acting commissioners. The canal commissioners have the general charge and superintendence of all the canals; and on them devolves the duty of constructing new canals when authorized by the legislature.

Commissioners of the Canal Fund.—The lieutenant-governor, the secretary of state, the attorney-general, the surveyor-general, the comptroller and the treasurer, are by right of office commissioners of the canal fund. They are authorized to make loans and deposits of the moneys in their hands belonging to that fund, and to purchase the canal stock.

The Canal Board.—This board consists of the canal commissioners and the commissioners of the canal fund. It has the appointment of collectors of tolls, superintendents of repairs and other canal officers. It has power to order extraordinary repairs and improvements on the canals—to make extra allowances to contractors—to fix the rates of tolls—to prescribe regulations for the collection of tolls—to impose forfeitures—and to remit certain penalties. —[Albany Argus.

CHESAPEAKE AND OHIO CANAL.—There are one hundred and two miles of the Canal let out, under an obligation, on the part of a select body of contractors, to finish it by the 1st day of September next—thirty-five days before the expiration of five years from the commencement of the work; and there is no reason to believe that the work will not be completed within the stipulated period. On the contrary, such is the progress already made, and now making, towards its completion, that it is expected sixty-four and a half miles will be in use before the 1st of June next, and the residue by the 1st of September. There are 4,500 men at present on the various works, aided by the weekly consumption of 7,000 pounds of gunpowder, and the labor of 800 horses, oxen, and mules, and a full complement of waggons, carts, &c. Success to the great enterprise !

THE GREAT BRITISH RAILWAY.—There is now every reason to believe that the London and Birmingham Railway Bill will pass the legislature in the course of the coming session, and that the projected plan for a railway communication between Birmingham and the two northern hives of industry, Liverpool and Manchester, will also be shortly carried into effect. Proposals are also on foot for continuing the line through Carlisle to Glasgow, with a branch to Newcastle; on the completion of which the metropolis would enjoy the facility of a rapid intercourse with all the great towns of the north. As either the Southampton or the Brighton railroad scheme may be expected to succeed, we shall only want our northern friends to extend the Glasgow railway to John o' Groat's, to have an iron road from one extremity of the island to the other! Would not this afford a good opportunity of putting in practice some method for the instantaneous communication of intelligence by means of electricity ?—[London paper.]

China.—The first specimen of an Anglo Chinese Kalendar and Register has been published in China for the year 1832. According to this authority, the population returns of the celestial empire, in 1813, amounted to 362 millions; of which number the capital, Pekin, alone is said to contain five millions.

Objections to Mr. Bulkley's Guard Rail, with some Suggestions on the Preservation of those of Timber. [Communicated for the American Railroad Journal.]

Mr. Minor,—The object of your Journal being to spread useful information, no inventor will object to a candid and frank discussion of objections. I venture to express some doubts, therefore, respecting the Rail described in your number of the 6th instant, invented by Mr. Bulkley.

He says it comprehends the principle of the arch. If so, it is an inverted one; and the force is on the wrong side for strength, which is in tension, not resistance, to pressure.

It is, however, a *guard rail;* that is, when a superstructure of cast iron breaks, the wrought iron is to catch or prevent the fall. Its useful effect depends not on the sure result of a principle, but on labor faithfully done in riveting down the ends of the bar embedded in the casting.

What, then, is the primary strength of the rail—for the moment the guard comes into use *is it not spoilt?* Will the wrought bar *prevent* the cast from breaking? Not if there is the least conceivable *yielding*.

When melted iron is poured around a cold bar of wrought iron, the latter expands, and on cooling, *contracts*, and the cast iron in cooling, shrinks, leaving it loose in the bore, towards the centre of the mass. All depends, then, on this subsequent operation, and the quantity of *heading* produced by percussion.

It is not a maxim in engineering to depend as far as possible on principles; and as little as possible on *manipulation*.

Besides, the claim of this improvement is founded in the assertion of a necessity for it, assumed contrary to experience. It is denied by some of the most distinguished of the English engineers, that wrought iron rails *exfoliate* under the wheels.

I will refer you to Wood's Treatise, page 69. It seems Mr. Chapman asserted this, but it was instantly contradicted, not from theory, but experience, by Longridge; and by Thompson, who, as agent to Lord Carlisle, had charge of Tinsdale Fell Railway, made of wrought iron, *these having been in operation* 16 *years, and no appearance*, he says, *of lamination or exfoliation.*

Mr. R. Stevenson, of Edinburgh, bears testimony to the preference of wrought iron, of which he says half the weight of cast iron will suffice.

Mr. G. Stevenson, of New-Castle, says, as quoted by Mr. Wood, "The malleable iron rails are more constant and regular in their decay, by the contact and pressure of the wheels, but they will, on the whole, *last longer than cast iron rails.* It has been said by some engineers that the wrought iron *exfoliates* or separates in their laminæ, on that part which is exposed to the pressure of the wheel. *This I pointedly deny*, as I have closely examined rails which have been in use for *many years*, with a heavy tonnage passing along them, and on no part are such exfoliations to be seen."

At page 71, mention is made of a Mr. *Hawkes*, who attempted an improved rail of *this kind*, cast over wrought iron, but without success, from the occurrence of practical difficulties which, perhaps, Mr. Bulkley's method may have overcome.

The *uncertainty of soundness* in cast iron does, on all occasions, require additional allowance of quantity.

In a material so uncertain, whether it be better to use an adequate quantity of that iron which can be depended on, or whether use some to guard the other, is of very questionable expediency.

The method of doing it is ingenious, but the occasion may not exist, or be needed in practice, unless it be sometimes in cities.

Nor is Mr. Bulkley wholly right, in my opinion, in his assertion, that railroads in timber cannot last over *five* years. Although it is best that all works should be permanent as possible, yet there are some parts of our country where it is very convenient to employ timber: and I have reason to think it can be done in such wise as to last thirty, perhaps fifty years. It has not been usual to take precaution for its durability, as in other occasions, but, on the contrary, there has been very little care applied to this branch. In building bridges, houses, and ships, precautions are taken, but none for the preservation of railroads: and why not?

Although it be true, as Mr. B. says, that a post will rot off soon at the surface of the ground, the durability of *sleepers* under the surface will depend mainly on the *kind* of timber used. It is the co-operation of heat and moisture that produces the decay. Below it is cooler; above, dryer. In piling canals we embed the plank in clay, which preserves them permanently.

Farmers surround their posts with stones, and these keep them cool at the surface. Were a railroad set on posts or piles, and these surrounded with *clay and stone*, they would (if covered at top) last very long.

And the reason suggested by Mr. Bulkley for the premature decay of the timber *under the rails*, is not the *whole explanation*. The iron absorbs the sun's rays, or *heats*, and shrinks the fibres of the timber immediately beneath the rail; the cracks let in the rain; here, combining heat and moisture, very early decay takes place, and the pressure of the carriage then promotes it by, as he says, 'bruising' the wood.

For these effects there is a very simple remedy, which I long since suggested to the public. It is, first to cover the upper surface with a resinous cement; drive three rows of *flat headed nails*, one inch apart, and fasten the *rail* down thereon, as usual. It now bears on *piles in miniature*, and the cement prevents the surface from being penetrated by the water. Having at the time devised some instruments to facilitate the work, I suppose this precaution will cost 500 dollars a mile per track. But, simple as it is, the added duration will be *three or four fold*, and the cheaper kinds of timber may be used, as chesnut, white pine, cyprus, larch, &c.; while locust and cedar should be preferred for the posts.

No *earth* should be allowed to come near these timbers. It must be *laterally* sustained—it should be alone by *stone*.

Although this is the best method of building with timber, I am an advocate for *durable materials* in most instances. But when *long lines* are to be formed for the sake of the *profits of the trade* the company opens for itself, the case may be different. It is then an object to get as little of the capital into the road as will answer the purpose of the trade for the next 50 years.

Suppose it were to be to make the (*chartered*) Railroad from the Hudson or the Passaic to the Coal Mines of Susquehanna. If there is a mode of making timber, defended against premature decay, thus answer—and *one track answer for two*—and half the usual embankment and graduations answer—then it should be preferable. But for a railroad for travelling between great cities, iron and stone are to be preferred, though in such mode as to make *one track* answer every purpose of two, except excessive speed.

It will prove a great mistake to have imported the *cheap brittle iron of Wales, rolled out at the first heat*, which may well cost but 4 or £5 a ton. But if it requires a wrought bar to sustain it, it may yet be of questionable economy.

The calculations are much wanting to a just opinion: Quantity per mile, and *cost here in good iron*, calculated as small as principle permits, then adding the wrought bar.

In cities, where the object is to have few supports, and guard against shocks, it is highly probable it would be comparatively useful. I regret that the necessary defence of other methods should have given occasion for any remarks against it. The claim is only too broad.

Respectfully yours,

J. L. Sullivan, Civil Engineer.

New-York, April 8, 1833.

Importance of Railways.—Mr. Richard Miles has communicated to us some highly interesting facts on this subject, which he has collected for his forthcoming work "On the National Advantages of Public Railways." The impulse which the Stockton and Darlington Railway has given to the trade of the port of Stockton-upon-Tees is perfectly astonishing; and accustomed as we are in this country to see great public works quietly proceeding until they burst into action and exhibit their wonderful powers, we confess in the present case it looks more like magic than reality.

Previous to the opening of this railway, no coal had been exported, the expense of getting it from the mines to the shipping place by the ordinary roads being too great. The quantity shipped since is as follows:

1826,	97 ships, carrying	8,192	imp'l chald'ns
1827,	280 do.	24,047	do.
1828,	530 do.	51,017	do.
1829,	450 do.	29,646	do.
1830,	1026 do.	93,779	do.
1831,	1665 do.	161,123	do.
1832,	2436 do.	263,009	do.

In 1829 the export fell off, owing to an extraordinary competition with the coal owners on the rivers Tyne and Wear. Large as the Stockton export has become, we believe that no sensible diminution has taken place in the shipments at the other coal ports, but the contrary.

The augmented population of London, and the additional steamboats, manufactories, &c. call annually for an increased supply.

As regards the argument that railways will tend to diminish the demand for labor, and therefore ought to be discouraged, we will briefly state their effects, as exemplified on the Stockton and Darlington Railway:

1st. The number of persons employed in making it.

2d. Ditto ditto in building carriages, warehouses, houses for workmen, agents, &c.

3d. Ditto ditto in working the railway.

4th. Ditto ditto in raising the extra quantity of coal.

5th. Ditto ditto in loading and navigating 2436 ships

6th. Ditto ditto in building, repairing, and fitting out such a large additional number of ships.

But the increased demand for labor which it has been the direct and indirect cause of creating does not stop here: it gave rise to a rival undertaking, namely, the "Clarence Railway," the main line of which will be open for business next month. And the "Tees Navigation Company" have been able, by the dues which such an extensive trade brings in, to undertake works of great magnitude, and to employ thousands of persons in improving and deepening the river.

With such facts before us, and looking at the benefits which must have resulted to the landowners by the beneficial letting of the mines beneath their property, we are almost tempted to ask, Are the resources of this country at all developed in the way of which they are capable? We believe not, and this can only be effected by means of railways.

Mr. Miles has ascertained from unquestionable authority here, that in the United States they are availing themselves much more largely of this invention (entirely of British origin) than we are; and that for one mile of railway going on or contemplated here, there are ten miles in the United States of America.

We look forward with pleasure to the publication of this work, which, as far as we have seen, promises to give to the public much valuable and interesting information on a very important subject.—[Liverpool Mercury.]

Liverpool and Birmingham Railway.—In the House of Commons on Friday, Mr. Patten obtained leave to bring in a bill for making a

railway from Warrington to Birmingham: the company intending to use the Liverpool line to Warrington.

UNDULATING RAILWAY.—Hitherto it has been received as a practical axiom, that railways can only be advantageously applied between points where a uniform dead level can be obtained. Now the patentees of the undulating railway maintain a proposition which is the logical contradictory of this. They hold, that even if the projected line be naturally a dead level, it must be artificially cut into ups and downs, so as to keep the load constantly ascending and descending until the journey is completed; and in so doing, they assert that the transport is produced in a considerably less time with the same moving power, or in the same time with a much less expenditure of the moving principle. Again, it has been held as a practical axiom, that if on a railway it becomes necessary to ascend from one level to another, the ascent is most advantageously made by a plane uniformly inclined from the lower to the higher level. On the contrary, the patentees of the undulating railway hold that the ascent is effected with a lesser power, by dividing the interval into ups and downs, so as to cause the carriage alternately to descend and ascend until it arrives at the upper level. Indeed, one of these propositions follows from the other, for if a greater momentum is generated in going from one point to another of the *same level*, by undulation in the railway, that *excess of momentum* will carry the load to a *greater height* than the momentum which the *same power* would generate on a *level railway*.

These facts have been illustrated by a small model on a wooden railway in the Adelaide street exhibition room. We have ourselves at that place instituted the following experiments, with the results here detailed. The moving power was a spiral main-spring, regulated by a fusee: a load was placed on a level railway of such an amount that the moving power was barely able to overcome the friction, but incapable of moving the load. In this state the carriage and load were transferred to the undulating railway, and the same moving power impelled the load with ease, and with considerable velocity, from one end to the other; and lest any difference of level should exist between the extremities, we caused the same experiment to be made in the contrary direction, which was attended with precisely the same result. Hence it was evident that, at least with the model, a *power incapable of transferring the load between two points at a given distance on a level railway, transferred the same load with facility and despatch through the same distance on the undulating railway.*

Our second experiment was as follows: We loaded the carriage in the same manner on the level railway, so that the power was barely equal to the friction, but incapable of moving the load. We then transferred the power and load to a railway, the remote extremity of which rose above the nearer extremity at the rate of one inch in eight feet. The power, which was thus utterly incapable of moving the load on the level, easily transferred the same load from end to end of the undulating railway, and at the same time actually raised it through one perpendicular inch for every ninety-six inches of its progress along the horizontal line.

Among the scientific men who have witnessed this exhibition, many, it is said, have declared, what indeed appears at first to be the case, that the result is contrary to the established principles of mechanics. We do not perceive, however, any difficulty in the phenomenon.

The effective impelling power, when a load is tracked upon a railway, must be estimated by the excess of the actual impelling power above the friction. Now, it is well known that the friction, being proportional to the pressure, is *less on an inclined than on an horizontal railway*. The same impelling power which on the level railway is *only equal to the friction*, and therefore incapable of accelerating the load, becomes effective on the inclined railway, where *it is greater than the friction*. The excess therefore becomes a means of generating velocity, so that when the load arrives at the extremity of the undulating line, a quantity of velocity has been communicated to it, which is proportional to the excess of the friction on the undulating above the friction on the level line. This is, theoretically speaking, a decided and undeniable advantage which the inclined railway possesses over the level. We could make this point still more clear, if we were addressing mathematical readers.

Now, if it be admitted that, at the extremity of the undulating line, a velocity is generated in the moving body much greater than any which could be produced by the same power acting on the level line, it will follow demonstratively that this velocity will be sufficient to carry the load up a certain height, bearing a fixed proportion to the velocity itself; and hence it will be perceived that a moving power, which is incapable of moving the load on a dead level, will be capable not only of moving it between the extremities of an undulating line when at the same level, but even of raising it to a higher level.

But the practical application of this principle seems to promise still greater advantages. In the above reasoning, we have assumed that the impelling power acts with a uniform energy in accelerating the motion of the load. This, however, is not the case when steam power is applied: the load soon attains a maximum velocity, and the engine becomes incapable of supplying steam fast enough to produce effective pressure on the piston. The cylinder, in this case, receives steam from the boiler only at the same rate as it is discharged by the motion of the piston, and scarcely any direct effect is produced by its pressure on the piston. In the undulating railway, the working of the engine will be suspended during each descent and a part of the succeeding ascent. In this interval the steam will be *nursed* and accumulated so as to be applied with its utmost possible energy the moment the velocity on the brow of the hill begins to decline. When the load surmounts the summit, and begins to descend the next hill, the operation of the engine will be again suspended, and its powers reserved and accumulated for the next ascent. The duty of the engine will thus be, *not to produce steam constantly at a great rate*, but to *produce steam of excessive energy for short and distant periods*. Every one who knows the practical working of high-pressure engines will see the advantage likely to result from this circumstance.

When the line connecting two points at the same level is thus resolved into curves, the motion of the engine may not inaptly be compared to that of *a pendulum*, and the moving principle stands in the place of the *maintaining power*, the functions of which are the same precisely as those which it discharges.

On the other hand, it is right to consider the practical objections to this projected improvement. The very small amount of friction on iron railways renders the rate of motion, when descending an incline, frightfully great. It would be premature, however, at present to pass judgment on what, after all, can only be satisfactorily decided by experiment.

We are glad to learn that the patentees have obtained the means of constructing an undulating line of railway of some miles in extent, for the purpose of testing on the large scale what they have already proved on a model.—[Athenæum.]

The Real Capabilities of Steam Carriages on Common Roads. By SAXULA. [From the London Mechanics' Magazine.]

The doubts and sneers that have been cast upon steam travelling on common roads have, I believe, been principally caused by the exaggerated statements of over-sanguine inventors. The disease is not cured because the patient deceives the doctors.

I have labored hard for many years at the theory and practice of locomotion, and found I am somewhat wiser for my trouble; but being wholly unassisted, my progress is necessarily slow. I consider all the noted steam carriages that have started have been over-driven, and will knock up in consequence. My theory and practice show me that a steam horse will do just as much as a living horse. It so happens that the working pace of steam (or piston rate) is about the working rate of a horse at his best; namely, 2¼ or 2½ miles an hour, and at this rate either horse will draw a ton on common roads, good and bad, up hill and down, for a day together, and this is a fair horse's work.

Now, if a *real* 8 horse-power engine be made, and its total weight be 4 tons, it will draw itself and 4 tons of goods at the rate of 2½ miles an hour. At five miles an hour it will draw only itself, and at 10 miles an hour it will only exert a power able to draw half of its own weight, through all roads; for locomotive machinery follows the laws of common machinery,—if the speed be increased the load must be lessened. 'Tis true, this 8 horse engine may be forced to much higher exertion, at the risk of speedy destruction.

It may be urged that coach horses do much more in proportion to this. True; but they can only work a few hours each day. Let our steam horses be considered as perpetual coach horses (which is allowing a great strain on the machinery, compared with stationary machinery,) and then how will the account stand? Four horses can take a stage coach of two tons at 8 miles an hour; consequently a steam engine of 8 horse power, to equal this, must weigh of itself only two tons, and have a load of two tons, being half a ton for each horse. But if the required speed be 16 miles an hour, then the engine must weigh only one ton and draw another ton. Therefore, *Query*,—Can a full 8 horse power engine be made, capable of continual work, that shall weigh only one ton? If so, 16 miles an hour can be maintained, and if not, the speed must be reduced as the weight is increased; and even in this parallel, where hills or bad roads occur that require the living horses to drop their speed to a walk, and then do their best, the steam engine (at the 8 miles an hour pace) must act on a lever nearly equal to the radius of the propelling wheels. This is a simple calculation, and involves the true capabilities of steam carriages on common roads.

Theoretically, I think Mr. Walter Hancock's boiler the best, having the greatest heating surface with the least weight; but I imagine thin metal heated by blast will not wear to pay charges. In fine, I think at present a locomotive engine cannot be made substantially for regular economical work under half a ton weight per horse power; and if so, great speed cannot be expected, and long levers must be used in difficulties, which is only coming round again to my old story. I understand Mr. Hancock has been fitting up his carriage with longer leverage.

Has it ever been well considered, that in stage coaches the first mover (the horses) goes at the same rate as the vehicle? The power and resistance work an equi-armed lever, namely, the spokes of the wheels; whilst in steam carriages, *the first mover* (*the*

pistons) *never exceeds 2½ miles an hour*, yet the vehicle is wanted to go 20 miles an hour: consequently 8 times the power are required to do it, that would be required at 2½ miles an hour.

He who builds an engine to propel a common stage waggon, will, in my opinion, soonest find his reward; and even here two steam horses will have to be maintained to do the work of one living horse, by reason of the weight of the engine, fuel, water, &c.

November 5, 1832.

The *Village of Little Falls*, of which the property was, within a few years past, acquired from foreign owners by some of our citizens, is beginning to attract attention, from its position on the Mohawk and the Erie Canal, its great advantages in point of water power, and its proximity to Albany and Utica. A report by Mr. Wright, the engineer, made to one of the chief proprietors of this village, which, by request, we publish to-day, will explain the actual state of the place.

Report of B. Wright, Engineer, on the advantages and water privileges of the village of LITTLE FALLS, *on the Mohawk River.*

NEW-YORK, JANUARY 24th, 1833.

To R. R. Ward, Esquire.—Sir: I have the honor to acknowledge the receipt of your favor of —— January, requesting my views of, and the knowledge I possess in relation to, the particular local advantages of the village of Little Falls, on the Mohawk River, in the County of Herkimer, in this State, where you inform me, you are largely interested.

This village is situated seventy-two miles from Albany, fifty-six from Schenectady, sixty-nine from Troy, seven miles from Herkimer Village, (the present locality of the Courts for the County), and twenty-two miles from Utica, in the county of Oneida.

Through it, along the southern edge of the River, passes the Erie Canal, and on the northerly side the Old Canal, now, in part, abandoned, but still subserving the purpose of a lateral Canal, and also a feeder to the Erie Canal, with which it is connected by a very important acqueduct. It has also the great Post Road from Albany to Niagara, Rochester, Buffalo, and all the Lake Country, and branching off either at the Little Falls or at Utica, the great Post Road to the Black River in Jefferson and Lewis Counties, and thence to the St. Lawrence and Upper Canada.

There are from ten to fifteen Stage Coaches running through the village every day, and from twenty to sixty Boats passing daily on the Canal in the season of navigation.

I have been perfectly acquainted with this part of the country, from having resided thirty-seven miles beyond it, at Rome, since forty-two years past, until I removed to this city, a few years ago, and while I had the charge of constructing the Erie Canal of which I was the principal Engineer from one thousand eight hundred and seventeen, its commencement, to one thousand eight hundred and twenty three, when I saw its completion from Rochester to Albany; in which time, we having had two years operation in finishing the work about the Little Falls, I had great opportunity to examine all the localities and peculiar advantages ol this place; its hydraulic privileges, and as well also, the difficulties and obstacles it had to encounter, by the owner being a Foreigner, and not entering into the proper plans and views for promoting the growth and prosperity of the village. These things were all familiar to me, and are yet, fresh in memory.

An examination of the map of the State will shew, that the Mohawk river, in its general course from Rome in the county of Oneida, where it first becomes a navigable stream, to its discharge in the Hudson River, between Waterford and Troy, runs about east southeast, distance one hundred and twenty miles. But, from the village of Herkimer, where the West Canada Creek falls into the Mohawk, its course to the Little Falls (seven miles) is east northeast, and from Little Falls, it runs southeast, forming a large bend or elbow, northwardly, and thereby making this place a more accessible depot for all the country northerly of it, than any other in its vicinity, which can ever be raised up as a rival point on the Canal, or on the great post road.

These natural advantages have already forced the roads from northwest, north and northeast to concentrate at that point, and nature has so formed the country, that nothing which art can accomplish can ever change them.

These advantages, together with the canal, and the extraordinary hydraulic privileges which it possesses, afford unrivalled facilities and advantages for making it a large inland manufacturing town;—when, too, it is considered that the country about it immediately after leaving the broken ground near the Falls, is one of the most fertile soils for twenty or thirty miles around, of any portion of the State. It is now pretty well cultivated, and is considered as what is called a well settled part of the State, with thrifty iudustrious farmers, and having villages and towns, churches and school houses, scattered over every part.

I have observed above that "this is a well settled country." I do not mean to be understood that the country is fully peopled; on the contrary, the fertility and products of the soil for twenty miles around this place, are fully capable of sustaining a population of two or three times its present inhabitants.

The products of the soil are wheat, corn, rye, oats, grass, and all the other productions of a first rate farming district in this latitude. The soil is generally of a limestone formation, which is considered by geologists as the most productive of any of the soils.

The village as now laid out, is situated in the valley of the river, where it has evidently forced its passage though the rocks and earth, until it separated the limestone strata, and cut down a considerable depth into the granite or gneiss, which is its present bed, and over which it forms a cataract or fall of forty-two feet in three quarters of a mile.

The north side of the river is much the best and most eligible situation for a village, by having the advantages of the great Road, and in not being so much covered from the sun by the hills, as the South side. The water power is also much more available at the north than on the south side, and there being a good stone bridge across the river, which gives access to all on the South, the village must grow on the North side in preference to any other.

The amount of water power which may be commanded at this place, and applied to all kinds of manufacturing purposes, I have never taken the trouble to calculate, by ascertaining what quantity of water passes over the Falls at the driest time of the year; but I think I can venture to say that there is enough to carry seven or eight hundred thousand spindles (perhaps more) in the driest season.

The local advantages for building cheap, I consider to be very great. There is at and about the village good granite for all kinds of cellar walls and other rough work, and at the distance of half a mile there is excellent limestone, laying in regular strata, so that in quarrying they come out in parallel blocks of from four to twelve inches thick, and work easy under the hammer or chisel. Excellent lime is also found in the same neighborhood. Timber and lumber of all kinds is to be procured north of the village, or may be had very cheap at the Canal, along which it is transported in very great quantities.

These are a part of the local advantages, and to these may be added, that it is well supplied with excellent water, which comes from springs on the hills, and may be brought by pipes into every house, for free and copious use in all domestic purposes.

The valley of the Mohawk is so situated, that it must and will continue to be the greatest thoroughfare in any part of the State, or perhaps of the United States. It is a kind of funnel, which receives travellers from all the Lake countries, from Upper Canada, from Ohio, Indiana, Illinois, Missouri, Michigan, North-Western Territory, and in a very few years, it will not be uncommon to see travellers from the Rocky Mountains, and the head waters of the Missouri and Mississippi, pass by the Little Falls. Nature has so determined, that it will become the greatest travelled road to be found in the United States, and the regular and natural passage for many hundred thousands of inhabitants, annually going to tide water from the interior of this continent, when it shall be fully peopled.

In your letter you remark, that none of the water power on the north side of the river, has been disposed of; and you ask me if I know the reasons "why these valuable privileges have been so long kept out of use, except in a very small degree?"

I am perfectly acquainted with many facts in relation to this matter. I well knew the late Mr. John Porteous, the agent of the late Mr. Alexander Ellice, the former owner, who resided in England, and had purchased all these privileges, and a considerable tract of country about the Falls, before the Revolutionary War. I saw Mr. Porteous when he was building the first small flouring mill, near the present old Red Mill, in 1789, and I knew him for many years after until his death; after which event, Mr. Alexander, who had married Mr. Porteous' daughter, was the agent of Mr. Ellice. After the death of Mr. A. Ellice, it fell to his son, Edward Ellice, now or late a member of Parliament, of some notoriety, and I have been informed, that neither the father or son would dispose of any water power; and it has been said, with what truth I know not, that Mr. E. Ellice was hostile to any manufacturing establishments being raised up there; and even the old Canal, which was commenced in one thousand seven hundred and ninety-three, and finished in one thousand seven hundred and ninety-five, was not a work which was patronized by Mr. Ellice, because it took away his exclusive right of carrying boats and their lading by the Falls, when the river was navigated by boats of one to two tons burthen. Mr. Ellice, the father, had made a large sum of money, as a trader among the Indians, before the war of the Revolution, in one thousand seven hundred and seventy-six; and it appears to have been his desire to retain the title of the property in himself, and to give nothing but leases, with ground rents, after the custom in general practice in England.

This practice of leasing, and having a village made up of tenantry, not being congenial to the minds of American born citizens, had a tendency to retard the growth of the village; and this course of proceeding on the part of the proprietor, added to his refusal to permit the advantages of the water power to be used, has heretofore operated as a serious check upon its increase—enterprizing business men being unwilling to settle themselves there, under all the disadvantages.

If the present proprietors of this village should adopt a judicious and proper plan for constructing the necessary dams and canals to bring the water into efficient use—and then sell out water rights for all kinds of manufacturing purposes, there is no doubt that a manufacturing village of from six to ten thousand persons would soon be located there.

In addition to the present advantages of the Erie Canal and the great Post Road passing through it, I can say with perfect confidence that within three years from this time, a Railroad will be commenced, to extend from Schenectady to Utica, aud eventually through to Lake Erie.

I am induced to give this opinion both from a perfect knowledge of the country and as professionally understanding the great importance of such a communication, adapted to the interest and growing population of the western part of the state.

As to a plan for improving the water power to the greatest possible extent and advantage, on this point you want the most judicious advice and skill of the Engineer.

You have no doubt informed yourself of the water power requisite to carry one thousand spindles of cotton, &c. This or the quantity necessary for carrying a pair of mill stones of five and a half or six feet, in diameter, proper for a flouring mill, is the most common way of estimating the value of water power.—This value you can obtain at our large manufacturing towns, such as Paterson, in New-Jersey; Lowell, in Massachusetts, or Pawtucket, in Rhode Island, and at other places.

As to the construction of the necessary dams and canals, so as to bring this water into use, there can be no difficulty in effecting it: but all depends upon the skill of your engineer; and, as I have before observed, the situation of the place for a great manufacturing town, such as Little Falls is destined by nature to become—surrounded by a healthy and fertile country, with such an extraordinary intercommunication with the world, cannot be equalled, much less surpassed, by any other place, within more than fifty miles of it, and as I now view it, there can never spring up rival establishments to counteract its growth and prosperity.

You ask, whether the demand for water power in that part of the State, is not in a great measure independent of a tariff of duties, and if so, you request me "to state in what particular."

In reply to this, I consider that every kind of manufacturing of cotton, iron, leather, wood, and I may say all except woollens, will go on in that part of the country whether the tariff of duties is maintained or otherwise. In my opinion an alteration of the tariff to the lowest point, which any anti-tariff man will ask, will not prevent cotton, iron, leather, brass and wood, and many other manufactures, requiring water power from progressing—it may check the rapid increase for a few years, but the final effect will be to

bring down the price of operatives in these establishments to a point, that will permit the principals to compete with foreign fabric. The reduction of the tariff will produce a reduction in labor and in provisions, and this will enable our manufacturers to rival successfully those of other nations. As an evidence of it, we know that our cotton goods can compete in South American markets with the English; as also many other smaller manufactures, such as buttons of every kind. All our coarser articles of iron, &c., such as shovels, spades, and a thousand articles of domestic use, can and will continue to compete with the English; and for the present manufacture of many of these, the interior of the country is more favorable than the seaboard, because the living will always be much cheaper there.

A part of your inquiry relates "to the quantity and value of the products of the country, which will naturally fall into, and concentrate its trade at, the Little Falls."

As I have before observed, the soil of the whole adjacent country, north, south, east and west, is very fertile and productive. In one direction, (i. e.) N. and N. E., however, the good soil does not extend more than twenty-five or thirty miles; it then becomes what is termed by farmers frosty, i. e. having late frosts in spring and early in fall, and is only adapted to grazing. The products of the country, for the first twenty-five miles, are some wheat and rye, oats and a good deal of Indian corn—together with large crops of hay. There are also large dairies kept in Herkimer county—some of eighty to one hundred cows in each, where great quantities of butter and cheese, are made, at present for the supply of the New York market.

It would be difficult for me to estimate the value of these products, but they are probably equal to any district of country of equal extent, in the interior of the State.

The country north of twenty-five or thirty miles, as before observed, is cold, and not very fertile.

Having surveyed some of the northern part of Herkimer county, into townships and farms, more than thirty years since, I found it a poor country for farming, but rich in minerals, particularly iron, and with considerable of good timber upon it.

I have marked with a pencil, a dotted line for a route for a canal for hydraulic works, so as to gain the greatest possible advantage of the fall of water, and you will see how I propose to work the same water twice over on a part of the line.

As I before observed, I have made these marks from the recollection I have of the ground, and nothing but a personal examination with instruments, and a calculation of costs, will test the correctness of these views; and such an examination and plan, well digested, are all important to your interest in this project, and will add or diminish thousands, perhaps tens of thousands of dollars, whether they are judiciously done or otherwise.

I have the honor to be, sir,

Very respectfully, your ob't serv't,

BENJ. WRIGHT.

PAPER CARPETS.—Paper carpets are formed by cutting out and sewing together pieces of linen, cotton, Scotch gauze, canvass, or any similar material, &c., to the size and form required; then stretching the prepared cloth on the floor of a large room, and carefully pasting it round the margins so as to keep it strained right. If cotton be the material, it will require to be previously wetted. When the cloth thus fixed is dry, lay on it two or more coats of strong paper, breaking joint, and finish with colored or hanging paper, according to fancy. Centre or corner pieces, cut out of remnants of papers, which may be bought for a mere trifle, may be laid on the self-colored ground, and the whole surrounded by a border; or any other method adopted which may suit the taste or circumstances of the occupier, or accord with the other furniture of the room. When the carpet is thus prepared, and quite dry, it should receive two coats of glue, or size made from the shreds of skins, such as is used by carvers and gilders. This size should be put on as warm as possible, and care should be taken that no part of the carpet should be left untouched by it, otherwise the varnish to be afterwards laid on will sink into the paper and spoil it. When the size is perfectly dry, the carpet should have one or more coats of boiled oil; and when that is dry, a coat of copal or any other varnish. The varnish is not absolutely essential, as boiled oil has been found to answer very well without it: but where oil only is used, it requires several more coats to be applied, and takes a much longer time to dry. These carpets are portable, and will roll up with about the same ease as oil cloth. They are very durable, are easily cleaned, and, if made of well chosen patterns, have a very handsome appearance.—[Encyclopædia of Cottage, &c. Architecture.]

PACES OF THE SNAIL.—The locomotion of animals which have no feet is a curious subject of physiological investigation, and has in some instances well rewarded the study of naturalists. The leech, the earth-worm, serpents, &c. have each their peculiar modes of progression; but the snail, as any person may observe, moves differently from all these, gliding along without jerks or undulations in any part of its body, and each point of the surface advancing simultaneously; for, the belly being smooth, with no appendages to perform the office of feet, the whole body consequently moves at once. Mr. J. Main, who has written an ingenious paper on the subject, has studied the motions of the Limax maximus, L. ater, L. rufus, and L. agrestis; and, by placing them on glass, the muscular motion was remarked to be from the tail to the head, and, of course, the movement cannot be by impulses. Mr. Main thinks the movement is produced by the propelling force of the slime projected in a retromissive manner from all parts of the body at once.

METEOROLOGICAL RECORD, KEPT IN THE CITY OF NEW-YORK.

For the Week ending Monday, April 15th, 1833.

[Communicated for the American Railroad Journal and Advocate of Internal Improvements.]

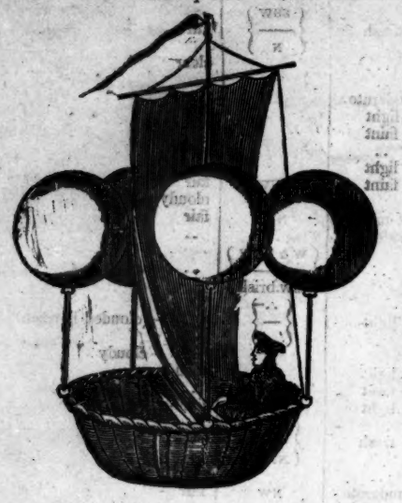
Date.	Hours.	Thermometer.	Barometer.	Winds.	Strength of Wind.	Clouds from what direction.	Weather and Remarks.
Tuesday, Ap'l 9	6 a. m.	52	29.75	NNW	fresh	SSW / N	fair
	10	56	.81	..	..		clear
	2 p. m.	63	.85	..	..		..
	6	61	.97	..	moderate		..
	10	54	30.01	..	light		..
Wednesday, 10	6 a. m.	48	.08	..	faint		..
	10	53	.11	..	..		..
	2 p. m.	62	.08	WSW—NW	light		..
	6	62	.04	NNW	faint	NNW	fair
	10	54	.05	..	..		cloudy
Thursday, 11	6 a. m.	50	.03	NE	light–moder'e	NW	fair
	10	52	.05	ESE	moderate	..	..
	2 p. m.	55	29.95	SE	..	W & NNW / SSW. brisk	..
	6	52	.79	SE by E	light	.. / — / ..	.. —(clouded horizon)
	10	51	.70	..	..		.. —cloudy
Friday, 12	6 a. m.	51	.50	SSE—S	light	SW	cloudy
	10	58	.47	SSW—SW	faint	SSW	..
	2 p. m.	68	.42	SW & variable	light	SW	fair—changeable
	6	51	.45	NNW	fresh	SSW / NNW	..
	10	53	.56	..	..		cloudy
Saturday, 13	6 a. m.	42	.65	..	moderate	NW	fair
	10	47	.72	..	fresh	..	..
	2 p. m.	47	.72	..	..	..	..
	6	46	.72	..	..	..	..
	10	43	.83	..	..	..	..
Sunday, 14	6 a. m.	42	.94	WSW	moderate		clear
	10	54	30.01	W by S	..		..
	2 p. m.	57	29.89	..	..	W	fair
	6	53	.91	..	..	W by S	..
	10	52	.95	..	..	..	..
Monday, 15	6 a. m.	38	30.25	S	..		..
	10	42	.27	..	..		..
	2 p. m.	47	.28	SSE	..	WSW	..
	6	39	.29	..	..	SW	..
	10	38	.30	..	..	..	..

Average temperature of the week, 51.51.

Passage of Musket Bullets through the human body.—A number of curious cases of the progress of musket balls from the place where they were first lodged, have been observed by military surgeons.—We have heard of a very remarkable case, where the musket ball struck the forehead above the nose, and having divided into two halves, one half went round beneath the skin, on the right side, and the other on the left, advancing in contact with the skull. We do not ask our readers to believe the poetical edition of this fact, that the two half bullets met again behind, after having performed the circuit of the head in opposite directions, and, advancing with a slightly diminished force, united, and killed an unfortuneate man who stood in their way; but the fact of the splitting of the bullet, and the advance of each half in opposite directions, is unquestionable. The singular progress of a musket bullet from the forehead to the throat, has been recorded by Dr. Fielding. At the first battle of Newbury, in the time of civil wars, a medical gentleman was shot near the right eye. The skull was fractured at the place, but though the surgeon could see the pulsation of the brain beneath the wound, yet the bullet had turned to one side, and could not be discovered. Various bones were discharged from the wound, the mouth and the nostrils. At the time of the second battle of Newbury, the wound healed, and could not be kept open; but about twelve years afterwards, when the doctor was riding in a cold dark night, he felt a pain on the left side of his head, about the "almonds of the ear," which occasioned a partial deafness. Having stopped his ear with wool, he was surprised one day, in March 1670, by a sudden puff or crack in his ear, when all that side of his cheek hung loose as if it had been paralytic, and a hard knot was felt under the ear. Various tumors now appeared about the throat, and in August 1672, the bullet was taken out of the throat near the *pomum adami*.—[Fraser's Magazine.]

London University.—At a general meeting of proprietors on Wednesday, Mr. Abercromby in the chair, it appeared from a report of the committee on the finances of the establishment, that the original capital subscribed, 158,882*l.*, had been expended, and a debt of 2946*l.* incurred. An addition of nearly 1000*l.* was anticipated within a few months; and an annual subscription of 1000*l.* a year was earnestly recommended, in order to restore the University to independence and a competent revenue.

[*From the Mechanics' Magazine and Register of Inventions and Improvements.*]



[We copy the following interesting account of Balloons from "Mr. Partington's British Cyclopædia," a work of unparalleled cheapness and of great merit.]

The idea of inventing a machine which should enable us to rise into the air appears to have occupied the human mind even in ancient times, but was never realized till the last century. The first suggestion for a sailing vessel, with any pretensions to the character of science, is due to Francis Lana, a distinguished Jesuit. This occurred in 1670; and the arrangement of the apparatus will be best understood by referring to the preceding figure.

Lana, it will be seen, proposed to support his car by the aid of four balls. These were to be exhausted of air; and the inventor argued that their diminished weight would cause the balls to support themselves and the aeronaut. We notice this apparatus, as similar schemes have been put forth even within our own times; but it must be obvious to any intelligent mind, that the external pressure of the atmosphere would destroy the vessels, even if they could be rendered light enough. Henry Cavendish having discovered, about 1766, the great levity of inflammable air or hydrogen gas, Dr. Black, of Edinburgh, was led to the idea that a thin bladder, filled with this gas, must ascend into the air. Cavallo made the requisite experiments in 1782, and found that a bladder was too heavy, and paper not air tight. Soap bubbles, on the contrary, which he filled with inflammable air, rose to the ceiling of the room, where they burst. In the same year, the brothers Stephen and Joseph Montgolfier constructed a machine which ascended by its own power. In November, 1782, the elder Montgolfier succeeded, at Avignon, in causing a large bag of fine silk, in the shape of a parallelopiped, and containing 40 cubic feet, to mount rapidly upwards to the ceiling of a chamber, and afterwards, in a garden, to the height of 36 feet, by heating it in the inside with burning paper. The two brothers soon afterwards repeated the experiment at Annonay, where the parallelopiped ascended in the open air 70 feet. A larger machine, containing 650 cubic feet, rose with equal success. They now resolved to make the experiment on a large scale, and prepared a machine of linen, lined with paper, which was 117 feet in circumference, weighed 430 pounds, and carried more than 400 pounds of ballast. This they sent up, June 5, 1783, at Annonay. It rose in ten minutes to a height of 6,000 feet, and fell 7,668 feet from the place of ascension. The method used to cause it to ascend was, to kindle a straw fire under the aperture of the machine, in which they threw, from time to time, chopped wood. But, though the desired effect was produced, they had no clear nor correct idea of the cause. They did not attribute the ascension of the vessel to the rarefaction of the air enclosed in it by the operation of the heat, but to a peculiar gas, which they supposed to be developed by the burning of the straw and wood. The error of this opinion was not discovered till a later period. These experiments roused the attention of all the philosophers of Paris. It occurred to some of them, that the same effect might be produced by inflammable air. M. Charles, Professor of Natural Philosophy, filled a ball of lutestring, 12 feet in diameter, and coated with a varnish of gum-elastic with such gas. It weighed 25 pounds, rose 3,123 feet in two minutes, disappeared in the clouds, and descended to the earth, after three-quarters of an hour, at the village of Gonesse, about 15 miles from Paris. Thus we see two original kinds of balloons: those filled with heated air, and those filled with inflammable air.

The process of filling balloons on the small scale for this species of aerial navigation, will readily be understood by a reference to the accompanying sketch, in which a simple condenser is employed. The common mode is to generate hydrogen gas in a bottle, by pouring dilute sulphuric acid on granulated zinc, but the hot and moist vapor from the acid speedily destroys the balloon. To prevent this, the experimentor has only to employ a second bottle containing water, and carry a bent-pipe from the first bottle through a cork in the second; it dips beneath the surface, and is condensed, and the pure hydrogen ascends by the second pipe to the balloon.

To continue: Montgolfier had gone to Paris, and found an assistant in Pilatre de Rozier, the superintendent of the Royal Museum. They completed together, in October, 1783, a new machine, 74 feet in height, and 48 in breadth, in which Rozier ventured for the first time to ascend, though only 50 feet. The balloon was from caution fastened by cords, and soon drawn down. Eventually the machine, being suffered to move freely, took an oblique course, and at length sunk down gradually about 100 feet from its starting place. By this the world was convinced that a balloon might, with proper management, carry a man through the air; and the first aerial expedition was determined on.

November 21, 1783, Pilatre de Rozier and the Marquis d'Arlandes ascended from the castle la Muette, in the presence of an innumerable multitude, with a machine containing 6,000 cubic feet. The balloon, after having attained a considerable height, came down, in 25 minutes, about 9,000 yards from la Muette. But the daring aeronauts had been exposed to considerable danger. The balloon was agitated very violently several times; the fire had burnt holes in it; the place on which they stood was injured, and some cords broken. They perceived that it was necessary to descend without delay; but when they were on the surface of the earth, new difficulties presented themselves. The weak coal fire no longer supported the linen balloon, the whole of which fell into the flame. Rozier, who had not yet succeeded in descending, just escaped being burnt. M. Charles, who had joined with M. Robert, soon after informed the public that they would ascend in a balloon filled with inflammable air. To defray the necessary expenses of 10,000 livres, he opened a subscription. The balloon was spherical, 26 feet in diameter, and consisted of silk coated with a varnish of gum-elastic. The car for the aeronauts was attached to several cords, which were fastened to a net, drawn over the upper part of the balloon. A valve was constructed above, which could be opened from the car, by means of cords, and shut by a spring. This served to afford an outlet to the inflammable air, if they wished to descend, or found it necessary to diminish it. The filling lasted several days; and, December 1st, the voyage was commenced from the Tuilleries. The balloon quickly rose to a height of 1800 feet, and disappeared from the eyes of the spectators. The aeronauts diligently observed the barometer, which never stood at less than 26°, threw out gradually the ballast they had taken in to keep the balloon steady, and descended safely at Nesle. But as soon as Robert stepped out, and it was thus lightened of 130 pounds, it rose again with great rapidity about 9,000 feet. It expanded itself with such force, that it must have been torn to pieces, had not Charles, with much presence of mind, opened the valve to accommodate the quantity of gas to the rarity of the surrounding atmosphere. After the lapse of half an hour the balloon sunk down on a plain, about three miles from the place of its second ascent.

Another ascent, which nearly proved disastrous to the aeronauts, may now be noticed. On the 15th of July, 1784, the Duke of Chartres, the two brothers Roberts, and another person, ascended with an inflammable air balloon from the park of St. Cloud, at 52 minutes past 7 o'clock in the afternoon. This balloon was of an oblong form, measuring 55½ feet in length, and 34 in diameter. It ascended with its greatest extension nearly horizontal; and after remaining in the atmosphere about 45 minutes, it descended at a little distance from whence it had ascended, and at about 30 feet distance from the *Lac de la Garenne*, in the park of *Meudon*. But the incidents that happened in this aerial excursion deserve to be particularly described, as nothing like it had happened before to any of the aerial travellers. This machine contained an interior smaller balloon, filled with common air; by which means, according to a mode hereafter to be mentioned, the machine was to be made to ascend or descend without any loss of inflammable air or ballast. The boat was furnished with a helm and oars, intended to guide it, &c.

On the level of the sea the barometer stood at 30.25 inches, and at the place of departure it stood at 30.12. Three minutes after its ascending, the balloon was lost in the clouds, and the aerial voyagers lost sight of the earth, being involved in a dense vapor. Here an unusual agitation of the air, somewhat like a whirlwind, in a moment turned the machine three times from the right to the left. The violent shocks which they suffered prevented their using any of the means prepared for the direction of the balloon, and they even tore away the silk stuff of which the helm was made. Never, said they, had a more dreadful scene presented itself to any eye, than that in which they were involved. An unbounded ocean of shapeless clouds rolled one upon another beneath, and seemed to forbid their return to the earth, which was still invisible. The agitation of the balloon became greater every moment. They cut the cords which held the interior balloon, which consequently fell on the bottom of the external one, just upon the aperture of the tube, which went down into the boat, and stopped it up. At this time the thermometer showed a little above 44°. A gust of wind from below drove the balloon upwards, to the extremity of the vapor, when the appearance of the sun showed them the existence of nature; but now, both the heat of the sun and the diminished density of the atmosphere occasioned such a dilation of the inflammable air, that the bursting of the balloon was apprehended; to avoid which they introduced a stick through the tube that proceeded from the balloon, and endeavored to remove from its aperture the inner balloon, which closed it; but the

dilation of the inflammable air pushed the inner balloon so violently against the aperture of the tube, that every endeavor proved ineffectual. During this time they still continued to ascend, until the mercury in the barometer stood not higher than 24.36 inches, which shows their height above the surface of the earth to be about 5,100 feet. In these dreadful circumstances, they thought it necessary to make a hole in the balloon, in order to give an exit to the inflammable air; and the Duke of Chartres, by means of one of the banners, made two incisions, which caused a rent of between seven and eight feet. They then descended very rapidly, seeing at first no object on earth or in the heavens; but a moment after they discovered the fields, and were descending straight towards a lake, into which they must have fallen had they not thrown overboard about sixty pounds weight of ballast, which occasioned their coming down at about thirty feet beyond the edge of the lake. Notwithstanding this rapid descent, occasioned by the great quantity of gas which escaped out of the two rents in the balloon, none of the four adventurers was hurt, but spoke in the highest terms of excitement of the pleasures of their expedition.

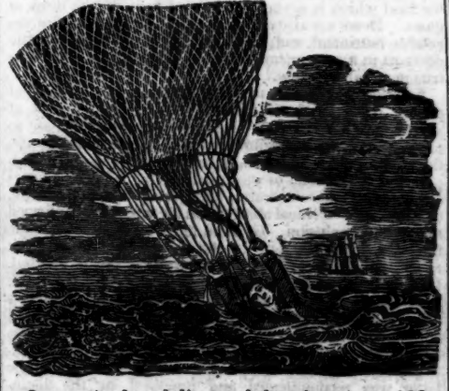
These successful aerial voyages were soon followed by others. Blanchard had already ascended several times, when he determined to cross the channel between England and France, which is about 23 miles wide, in a balloon filled with inflammable air. He succeeded in this bold attempt, January 7, 1785, accompanied by an American gentleman, Dr. Jeffries. About one o'clock they left the English coast, and at half-past two, were on the French. Pilatre de Rozier, mentioned before as the first aeronaut, attempted, June 14, 1785, in company with Mr. Romain, to pass from the French to the English side; but the attempt was unsuccessful, and the adventurers lost their lives. M. de Rozier had on this occasion united the two kinds of balloons; under one, filled with inflammable air, which did not alone possess sufficient elevating power, was a second, filled by means of a coal fire under it. Rozier had chosen this combination, hoping to unite the advantages of both kinds. By means of the lower balloon, he intended to rise and sink at pleasure, which is not possible with inflammable air; for a balloon filled with this, when once sunk to the earth, cannot rise again with the same weight, without being filled anew; while, on the contrary, by increasing or diminishing the fire under a balloon filled with heated air, it can be made to rise and fall alternately. But this experiment caused the death of the projectors. Probably the coals, which were only in a glowing state near the surface of the ground, were suddenly kindled to a light flame as the balloon rose, and set it on fire. The whole machine was soon in flames, and the two aeronauts were precipitated from the air. The condition of their mangled bodies confirms the conjecture that they were killed by the explosion of the gas. This unhappy accident did not deter others; on the contrary, the experiments were by degrees repeated in other countries.

However important this invention may be, it has as yet led to no considerable results. Its use has hitherto been confined to observations in the upper regions of the atmosphere. But should we ever learn to guide the balloon at will, it might, perhaps, be employed for purposes of which we now have hardly an idea; possibly the plan of Professor Robison might be accomplished by the construction of a gigantic balloon, which would enable us to perform an aerial circumnavigation of the earth. During the French Revolution, an aerostatic institution was founded at Meudon, not far from Paris, for the education of a corps of aeronauts, with the view of introducing balloons into armies as a means of reconnoitering the enemy. But this use of balloons was soon laid aside, for, like every other, it must be attended with great uncertainty, as long as the machine has to obey the wind. Among the French, Blanchard and Garnerin have undertaken the greatest number of aerial voyages; among the Germans, Professor Jungius, in Berlin, in 1805 and 1806, made the first. Since that time, Professor Reichard and his wife have become known by their aerial excursions. Even in Constantinople such a voyage was performed, at the wish and expense of the Sultan, by two Englishmen, Barly and Devigne. Blanchard has rendered an essential service to aeronauts by the invention of the parachute, which they can use, in case of necessity, to let themselves down without danger.

The arrangement of the parachute, with reference to its use for aeronautic purposes, may now be more fully illustrated.

In the right hand figure, M. Garnerin's apparatus is seen as it ascended from St. George's parade. A cylindrical box, about three feet in height, and two in diameter, was attached by a straight pole to a truck or disc at the top, and from this was suspended a large sheet of linen, somewhat similar to an umbrella. The form it assumed on the descent of the aeronaut is shown in the next figure. When first cut from the balloon, it descended with amazing velocity, and those who witnessed its progress considered the destruction of the aeronaut as certain; but after a few seconds the canvas opened, and the resistance was so great, that the apparatus diminished in its speed, till on its arrival near the earth it was not greater than would have resulted from leaping a height of two feet.

Amongst the unfortunate aeronauts we may place Major Money, who ascended from Norwich, under the full impression that the aerial current would take the balloon in the direction of Ipswich. Scarcely, however, had he attained an altitude of one mile, when a violent hurricane, operating in a new direction, drove the balloon towards Yarmouth. Several small row boats immediately put out from that port, and endeavored to keep pace with the balloon, but without success; and Major Money first touched the sea about nine miles from land, and more than three from any means of assistance.



Our artist has delineated the situation of Major Money at the period we have now been describing, or rather about ten minutes after he had parted with a portion of his clothes and instruments; and it was only by the assistance of a fast sailing cutter, which happened to lay in the track of the balloon, that he was saved, when almost exhausted.

Having thus given a brief account of the early history of the aerostatic art, and of the successive improvements which the balloon has undergone both in its external form and appearance, and the nature of the material used for inflation, we may now speak of the very beautiful machines which are employed for aerial excursions by the aeronauts of the present day.

The preceding illustration exhibits a very picturesque view of the ascent of that veteran, Mr. Green, from the Park, on the occasion of the coronation of his late majesty, George IV. The balloon itself, the form of which is similar to, but infinitely more beautiful than, a pear, is composed of strips of variegated silk, the harmony of which has a particularly pleasing effect on the eye. Over this is thrown an envelope of net-work, which passing down serves as a support to which the car is attached.

The utility of aeronautic studies and experiments has been very much questioned, even by philosophical minds. M. Cavallo, well known in the philosophical world, suggested long ago that small balloons, especially those made of paper, and raised by means of spirits of wine, may serve to explore the direction of the winds in the upper regions of the atmosphere, particularly when there is a calm below; and we see the French aeronauts adopted this idea, that they might serve also for signals in various circumstances, in which no other means can be used; and letters or other small things may be easily sent by them: for instance, from ships that cannot safely land on account of storms, from besieged places, islands, or the like. The larger aerostatic machine, he adds, may answer all the above-mentioned purposes in a better manner; and they may, besides, be used as a help to a person who wants to ascend a mountain or a precipice, or to cross a river; and, perhaps, one of the machines tied to a boat by a long rope, may be, in some cases, a better sort of sail than any that is used at present. Their conveying people from place to place with great swiftness, and without trouble, may be of essential use, even if the art of guiding them in a direction different from that of the wind should never be discovered. By means of these machines the shape of certain seas and lands may be better ascertained; men may ascend to the top of mountains they had never visited before; they may be carried over marshy and dangerous grounds; they may by that means come out of a besieged place, or an island; they may, in hot climates, ascend to a cold region of the atmosphere, either to refresh themselves, or to observe the ice which is never seen below; and, in short, they may be thus taken to several places, to which human art hitherto knew of no conveyance.

AGRICULTURE, &c.

Proceedings of the New-York State Agricultural Society, at the first Anniversary held at Albany on the 14th and 15th Feb. 1833.

Communication from JESSE BUEL, *Esq. on the Culture of Indian Corn.*

There is no crop more beneficial to the American farmer than Indian corn. An eminent agriculturist, the late John Taylor, of Virginia, called it the "meal, meadow, and manure," of the farm. It is convertible into human food in more forms than any other grain; its value in fattening domestic animals is not exceeded by any product of the farm; and no crop returns more to the soil than this does in the form of manure. There are two important requisites, however, to its *profitable* cultivation. The first is, that the soil be adapted to its growth; and the second, that the crop be well fed and well tended: for food and attention are as important to the plant as to the animal. Ordinarily speaking, it costs less to take care of a good crop of corn, on proper corn land, than it does of a bad crop on land not adapted to its culture. The first is light and dry. The latter stiff, wet, or grassy. I put the average expense of cultivating and securing an acre at $15,* including a fair rent, though it ordinarily exceeds this sum. The farmer, therefore, who obtains thirty bushels from the acre, estimating the grain at 50 cents per bushel, gets a fair compensation for his labor, and the use of his land. Whatever the product falls short of this is an absolute loss; and whatever it may exceed it is net gain. Thus the man who gets but twenty bushels from the acre loses, upon this estimate, $20 worth of his labor, on four acres. He who raises 80 bushels an acre, on the other hand, realizes a net profit of $100 from four acres—making a difference in the profits of the two farmers, in the management of four acres of corn, of *one hundred and twenty dollars!* These data are sufficiently accurate to show the importance of the two requisites I have suggested, and the value of a little calculation in the business of farming. The habit of noting down the expense, as well as the product of a crop, and thus ascertaining the relative profit and loss, is highly advantageous to the practical farmer, and one which cannot be too strenuously inculcated. It will perhaps be said, that I ought to add the value of the manure which is employed in the large crop; but I reply, that I offset this against the increased forage which this crop furnishes. Besides, by applying the manure in the unfermented state in which it is generally found in the spring, it will be as beneficial to the succeeding crops as though it had lain and fermented in the yard, and been applied in the usual way in the autumn.†

* *Estimated expense of cultivating an acre of Indian corn:*

One ploughing, (suppose a clover lay)	$2 00
Harrowing and planting, - - -	2 00
Two hoeings, 4 days and horse team,	3 75
Harvesting, 2 days, - - - -	1 50
Cutting and harvesting stalks, - -	1 50
Rent, - - - - - - - -	5 00
	$15 75

† Stable and yard manures lose 50 per cent. by the fermentation they undergo in the yard during the summer. This loss consists of the gases which are evolved in the process of rotting, and of the fluids which sink into the earth, or are carried off by the rains. Plants receive their food either in a gaseous or liquid form. If manure rots in the soil, neither these gases or fluids are lost: the earth retains, and the roots of the plants imbibe them. Yet recent manures are not proper to be applied to small grains. They cause too rank a growth of straw, and are apt to induce rust and mildew. Thus a crop of corn, potatoes, or ruta baga, may be *fed* and *fattened*, if I may use the expression, upon the dung which is destined to nourish the wheat crop, without deteriorating its value for the latter purpose, if it is applied to the corn, &c. before it has fermented.

* We are on the northern border of the maize zone, and should make up for defect in climate by selecting soils into which the heat readily penetrates. Air, besides conveying warmth in summer, imparts fertility by the vegetable food which is always suspended in it in the form of gases. Dews are also charged with these properties of vegetable nutriment, and, when the soil is porous, they settle down as in a sponge, and impart fertility to the roots (the true months) of plants.

† I adopt the opinion of Davy, as the *modus operandi* of plaster of paris, that it forms a necessary constituent of plants which it benefits, and is of no direct benefit to plants which do not afford it on analysis. Among the first are the clovers, corn, potatoes, and generally such plants as have broad or succulent leaves; while the latter embrace culmiferous grains and grasses, as wheat, rye, timothy, &c. Critical observation for years has confirmed me in this conclusion. Gypsum must be rendered soluble before it can be taken up by the mouths of plants, and it requires 600 parts of water to dissolve one of this mineral. I infer from these facts that, by burying it in the soil, it more readily dissolves, and is more accessible to the mouths of plants than if spread upon the surface of the ground. I am induced, from these views of the subject, to sow plaster, on grass grounds, in March, and upon corn and potato grounds before the last ploughing for these crops. The latter was recommended and practised by the distinguished agriculturists, the late Mr. Taylor, of Virginia, and Judge Peters, of Pennsylvania.

The soils adapted to the culture of Indian corn are such as are permeable to heat, air,* and the roots of the plant, and embrace those denominated sandy, gravelly, and loamy. Corn will not succeed well on grounds that are stiff, hard, or wet. The roots grow to as great a length as the stalks, and the soil must be permeable to permit their free extension.

The manures used are generally yard and stable dung, and plaster of paris, (*sulphate of lime.*) The first ought to be abundant, as upon the fertility which it induces depends the profit of the crop. Long or unfermented manure is to be preferred. It decomposes as the wants of the plant require it; while its mechanical operation, in rendering the soil light and porous, is beneficial to the crop. It should be equally spread over the whole surface, before it is ploughed under. It then continues to afford fresh pasture to the roots till the crop has matured, and is in its place to benefit the succeeding crop. If put into the hills, the roots soon extend beyond its influence, it does not so readily decompose, and the subsequent crop is prejudiced from its partial distribution in the soil. In a rotation of four or five years, in which this crop receives the manure, twenty-five or thirty ordinary loads may be applied to *one* acre with greater profit than to *two* or *three* acres. Every addition tells in the product; and there is scarcely any danger of manuring too high for this favorite crop. Gypsum is applied broadcast before the last ploughing or harrowing, or strewed on the hills after hoeing. I pursue the first method, at the rate of a bushel to the acre.†

The best preparation for a corn crop is a clover or other grass lay, or lea, well covered with a long manure, recently spread, neatly ploughed, and harrowed lengthwise of the furrow. A roller may precede the harrow with advantage. The time of performing these operations depends upon the texture of the soil, and the quality of the sod. If the first is inclined to clay, or the latter tough or of long continuance, the ploughing may be performed the preceding autumn; but where sand or gravel greatly preponderate, or the sod is light and tender, it is best performed in the spring, and as near to the planting as convenient. The harrow at least should immediately precede planting. All seeds do best when put into the fresh stirred mould. Stiff lands are ameliorated and broken down by fall ploughing; but light lands are rather prejudiced by it. When corn is preceded by a tilled crop the ground should be furrowed, and the seed deposited in the bottoms of the furrows. Where there is a sod, the rows should be superficially marked, and the seed planted upon the surface. Where the field is flat, or the sub-soil retentive of moisture, the land should be laid in ridges, that the excess of water which falls may pass off in the furrows.

The time of planting must vary in different districts and in different seasons. The ground should be sufficiently warmed by vernal heat to cause a speedy germination. Natural vegetation affords the best guide. My rule has been to plant when the apple is bursting its blossom buds, which has generally been between the 12th and 20th of May.

Preparation of the Seed. The enemies to be combatted are the wire-worm, brown grub, birds and squirrels. Of these the first and two last prey upon the kernels, and against these tar offers a complete protection. I soak my seed 12 to 20 hours in *hot* water, in which is dissolved a few ounces of crude saltpetre, and then add (say to 8 quarts of seed) half a pint of tar, previously warmed and diluted with a quart of warm water. The mass is well stirred, the corn taken out, and as much plaster added as will adhere to the grain. This impregnates and partially coats the seed with the tar. The experience of years will warrant me in confidently recommending this as a protection for the seed.

The manner of planting is ordinarily in hills, from two and a half to six feet apart, according to the variety of corn, the strength of the soil, and the fancy of the cultivator. The usual distance in my neighborhood is three feet. Some, however, plant in drills of one, two, and three rows, by which a greater crop is unquestionably obtained, though the expense of culture is somewhat increased.* *The quantity of seed* should be double, and may be quadruple,† what is required to stand. It is well known that a great difference is manifest in the appearance of the plants. Some appear feeble and sickly, which the

* The following table exhibits the difference in product of various methods of planting, and serves also to explain the manner in which large crops of this grain have been obtained. I have assumed in the estimate that each stock produces one ear of corn, and that the ears average one gill of shelled grain. This is estimating the product low; for while I am penning this (October) I find that my largest ears give two gills, and 100 fair ears half a bushel of shelled corn. The calculation is also predicated upon the supposition that there is no deficiency in the number of stocks, a contingency pretty sure on my method of planting.

		Hills.	*bush.*	*qts.*
1.	An acre, in hills 4 feet apart, will produce, each way, -	2722	42	16
2.	The same, 3 by 3 feet, - -	4840	75	20
3.	The same, 3 by 2½ feet, -	5808	93	28
4.	The same in drills, at 3 ft. plants 6 in. apart, in the drills, - *Stalks*	29,040	113	14
5.	The same in do. 2 rows in a drill, 6 in. apart, and the plants 9 in. and 3 ft. 9 in. from centre of drills thus,	30,970	120	31
6.	The same in do, 3 rows in a drill, as above, 3 ft. from centre of drills,	43,560	170	5

The fifth mode I have tried. The ground was highly manured, the crop twice cleaned, and the entire acre gathered and weighed accurately the same day. The product in ears was 103 baskets, each 84 lbs. net, and 65 lbs. over. The last basket was shelled and measured, which showed a product on the acre of 118 bushels 10 qts. I gathered at the rate of more than 100 bushels the acre, from 4 rods planted in the third method, last summer, the result ascertained in the most accurate manner. Corn shrinks about 20 per cent. after it is cribbed. The sixth mode is the one by which the Messrs. Pratts, of Madison county, obtained the prodigious crop of 170 bushels per acre. These gentlemen, I am told, are of opinion that the product of an acre may be increased to 200 bushels.

† I am told the Messrs. Pratts, above alluded to, used seven bushels of seed to the acre, the plants being subsequently reduced to the requisite number.

best nursing will not render productive. The expense of seed, and the labor of pulling up all but three or four of the strongest plants in a hill, it is believed will be amply remunerated by the increased product. If the seed is covered as it should be, with fine mould only, and not too deep, we may at least calculate upon every hill or drill having its requisite number of plants.

The after culture consists in keeping the soil loose and free from weeds, which is ordinarily accomplished by two dressings, and in thinning the plants, which latter may be done the first hoeing, or partially omitted till the last. The practice of ploughing among corn, and of making large hills, is justly getting into disrepute: for the plough bruises and cuts the roots of the plants, turns up the sod and manure to waste, and renders the crop more liable to suffer by drought. The first dressing should be performed as soon as the size of the plants will permit, and the best implement to precede the hoe is a corn harrow, adapted to the width of the rows, which every farmer can make. This will destroy most of the weeds and pulverise the soil. The second hoeing should be performed before or as soon as the tassels appear, and may be preceded by the corn harrow, a shallow furrow of the plough, or, what is better than either, by the cultivator.* A slight earthing is beneficial, providing the earth is scraped from the surface, and the sod and manure not exposed. It will be found beneficial to run the harrow or cultivator a third and even a fourth time, between the rows, to destroy weeds and loosen the surface, particularly if the season is dry.†

In harvesting the crop, one of three modes is adopted, viz. 1. The corn is cut at the surface of the ground, when the grain has become glazed, or hard upon the outside, put immediately into stocks, and when sufficiently dried, the corn and stalks are separated and both secured. 2. The tops are taken off when the corn has become glazed, and the grain permitted to remain till October or November upon the buts. Or, 3. Both corn and stalks are left standing till the grain has fully ripened, and the latter become dry, when both are secured. There are other modes, such as leaving the buts or entire stalks in the field, after the grain is gathered; but these are so wasteful and slovenly as not to merit consideration. The stalks, blades, and tops of corn, if well secured, are an excellent fodder for neat cattle. If cut, or cut and steamed, so that they can be readily masticated, they are superior to hay. Besides, their fertilizing properties, as a manure, are greatly augmented by being fed out in the cattle yard, and imbibing the urine and liquids which always there abound, and which are lost to the farm, in ordinary yards, without an abundance of dry litter to take them up. By the first of these methods, the crop may be secured before the autumnal rains; the value of the fodder is increased, and the ground is cleared in time for a winter crop of wheat or rye. The second mode impairs the value of the forage, requires more labor, and does not increase the quantity or improve the quality of the grain. The third mode requires the same labor as the first, *may* improve the quality of the grain, but must inevitably deteriorate the quality of the fodder. The corn cannot be husked too promptly after it is gathered from the field. If permitted to heat, the value of the grain is seriously impaired.*

Saving Seed. The fairest and soundest ears are either selected in the field or at the time of husking, a few of the husks being left on, braided, and preserved in an airy situation till wanted for use.

In making a choice of sorts, the object should be to obtain the varieties which ripen early, and afford the greatest crop. I think these two properties are best combined in a twelve-rowed kind which I obtained from Vermont some years ago, and which I call Dutton corn, from the name of the gentleman from whom I received it. It is earlier than the common eight-rowed yellow, or any other field variety I have seen, and at the same time gives the greatest product. I have invariably cut the crop in the first fourteen days of September, and once in the last week in August. The cob is large, but the grain is so compact upon it, that two bushels of sound ears have yielded five pecks of shelled grain, weighing 62 lbs. the bushel.

In securing the fodder, precaution must be used. The buts become wet by standing on the ground, and if placed in large stacks, or in the barn, the moisture which they contain often induces fermentation and mouldiness. To avoid this I put them first in stacks so small that the whole of the buts are exposed upon the outer surface; and when thoroughly dry they may be taken to the barn, or left to be moved as they are wanted to be fed out—merely regarding the propriety of removing a whole stock at the same time.

* The cultivator is made in the form of a triangular harrow, with two bulls; or if intended to be graduated to different widths, a centre bull is added, to which the exterior ones are attached by hinges. Iron slats, fixed to the exterior bulls, pass through a mortice in the centre one, perforated with holes, through which an iron pin passes to hold them at the graduated width. The teeth may be in any approved form, or reasonable number. The cultivator I use has five teeth, two in each of the outward and one upon the centre timber. The teeth have a stout shank, with a duck's foot termination, four inches broad, somewhat cylindrical, rounded at the point, and inclined forward in an angle of 30 or 40 degrees. This implement is useful for other purposes; and may be used, like Beatson's, as a substitute for the plough, in preparing light soils for a crop. The handles are attached to the centre piece. The teeth have a shoulder, on the under side of the timber, and are fastened with screws and nuts above.

† Some entertain a mistaken notion, that it is prejudicial to stir the soil among corn in dry weather, and others that weeds serve to prevent the evaporation of moisture by a hot sun. The reverse of these opinions is true. The exhaustion of moisture by a plant is in the ratio of the surface of its leaves and stocks presented to the sun and air.

* The leaves are the necessary organs for elaborating the food of plants, and when these are taken away the plant must cease to grow. The sap is useless until it undergoes elaboration in the leaves. Hence, when corn is topped in the usual way, the supply of food is cut off from the grain, except what may be elaborated in the husks. On comparing corn gathered by the first and second modes, it was the opinion of those who assisted in husking, that the first was soundest, brightest, and heaviest. The third mode I have not tried, but it seems probable that the grain might acquire an increase of volume, though it would lose again by depredation and waste. The first method has these further advantages, that it preserves the cob from being saturated with rains, and secures the fodder when in its highest perfection and greatest quantity.

TEA WHEAT.—THE SEASON.—Extracts from a letter from Elisha Marvin, Esq., of Ripley, N. Y. to the Proprietor of the N. E. Farmer.

The tea wheat which I have sent you I had from the Province of New-Brunswick, soon after it was first noticed in your paper. I have sown this wheat every spring since, from the tenth of March to the first of May. The choice of time depends on the season; a dry season sometimes injures late sowing, for which reason I prefer sowing as soon as the ground will admit.

This grain does well on what we call a natural wheat soil, and just as well on any good soil. In wet or low places in your field, where winter wheat would be killed by ice, or thrown out by frost, this wheat will give a fair crop.

On our dividing ridges, which are generally a wet cold soil, and covered four or five months with deep snow, this wheat does well. Winter wheat, if grown at all in such situations, would give but an indifferent crop, and that of a light and poor quality. The tea wheat weighs 63 pounds to the bushel; other spring wheat, in this region, 58. The tea wheat yields a far better crop than either the bearded or bald spring wheat; and suits much better to every variety of soil. With these advantages I think I can with all safety call the tea wheat the best spring crop of grain we have in this region of country.

Our season is now (March 15) mild. The coldest day the present year was the 2d of March, when the ice in the lake fastened for the first time, and is not yet started.

CULTURE OF THE VINE.—For some years past, (says a correspondent of the American Farmer, under date of Baltimore, March 20, 1833,) my attention has been drawn to the cultivation of the vine, as the means of giving to our country a new agricultural product, which, supplying the farmer with a wholesome beverage, and adding to his resources, may take the place of whiskey with the generations that are to come.

I have reluctantly convinced myself, that we shall never be able to produce from our native vines, in this latitude, a wine that will be fit to drink—and indeed, I may say that it has never been my lot to taste a sample of wine from our grapes which could give place for hope. On the other hand, the severity of our climate, during the winter and spring months, proves fatal to almost all imported varieties. I have sought, therefore, with great earnestness, for a foreign vine which combines the hardihood of some of the Rhenish vines with those qualities which are necessary for the vat. That *desideratum* has, I think, at length been found in the Herbemont Madeira or Warrenton grape. In No. 50, vol. xiv. of the American Farmer, Mr. Thomas McCall, of Georgia, has traced it satisfactorily to a foreign origin, and it indeed possesses many of the qualities of the best foreign wine grapes I have ever seen. It is an abundant bearer, the bunches are generally perfect, and if left to become quite ripe, it is not unlike, in flavor and appearance, the Miller's Burgundy.

In the spring of 1831, I received from Mr. Herbemont five hundred roots, very well put up and in the finest condition. I had them carefully planted at eight feet apart one way and six the other, and pruned to two buds each. The growth of the vines was very luxuriant and beautiful. Nothing more was done but to keep them free from weeds and tie up the leading shoots. The wood ripened well, and no further attention was paid to them until March, 1832, when they were again pruned to three or five buds each. Two only had died; and these were indifferent plants through the summer. I consider this a sufficient proof that they will stand our winters, for that of 1832 was severe.

They were again pruned about ten days since; I have carefully examined them, and perceive throughout that perfect *coupe*, which to a French vigneron is a sure indication of health and promise.

I have reason to believe that I shall be able this fall to make some barrels of wine as an experiment.

NEW-YORK AMERICAN.

APRIL 13, 15, 16, 17, 18, 19—1833.

LITERARY NOTICES.

THE NORTH AMERICAN REVIEW, No. LXXIX. Boston, CHAS. BOWEN: New-York, G. & C. & H. Carvill.—We have read this number of the North American Review with great pleasure. Its leading paper on Sir *Walter Scott*, descants, *con amore*, upon the beautiful character and immortal literary labors of the man who has done more for the virtuous gratification, and exercised a more wide and potent sway over the minds and hearts, of men of all nations, than probably ever was effected before by the genius of one individual. And yet, there are men who think it wrong to speak praisingly of Walter Scott!—pious, good men! who deem it a reproach that a Christian clergyman should pronounce a eulogy upon one, whose life nevertheless was a model of the Christian virtues in practice, and whose heart knew no guile. If to the eyes and understandings which thus consider things, any avenue be yet open, through which truth without prejudice may penetrate, we commend to their attention this article of the North American. Next come a history of Spanish poetry, previous to the XVth century, and of the formation of the present Castilian language; a paper which among the numberless learners now-a-days of the glorious Spanish tongue, will find many readers. *The Evidences of Christianity, by Bishop M'Ilvaine*, as contained in the Lectures delivered by that Prelate in this city some two years ago, furnish the next subject; and this valuable treatise is praised with a just discrimination of its merits. These lectures were designed for young men, to whose habits, taste, and circumstances, they are admirably adapted. "If we do not greatly mistake," says the Reviewer, "it will be found, that the fact of the author's having written with this class of hearers and readers in his eye, in connexion with the uncommon perspicuity, and felicitous arrangement, and general excellence of the work, will secure to it an introduction as a text-book into some of our literary institutions." We pass over the article on Watson's Annals of Philadelphia, on the Law School at Cambridge, and the more elaborate and ambitious one on the Progress of Society, to speak of that on Southey's Life of Bunyan, and on the character and genius of Bunyan himself; a most eloquent article, reminding one of Macaulay of the Edingburgh, and written with a full perception of the genius of Bunyan, and his extraordinary work, the Pilgrim's Progress; a work which interests and attracts childhood, and commands the admiration and reverence of mature age. Thatcher's Indian Biography, Abercrombie on the Intellactual Powers, and Swallow Barn, are the subjects of the three remaining papers.

EBEN ERSKINE, OR THE TRAVELLER: by *John Galt*, author of *Laurie Todd*, 2 vols. Philad. CAREY, LEA & BLANCHARD.—"This may be my last novel; for the latter part has been dictated from a bed of sickness, and the disease is not of a very equivocal kind!" Such is the melancholy announciation with which Mr. Galt ushers these volumes into the world: may their success console the hours which disease is wasting! Lord Byron, in one of his conversations with Lady Blessington, lamented that, having had an opportunity by making a sea-voyage with him, of cultivating an acquaintance with Mr. Galt, he had neglected it; for that he had since learned to think highly of him as a man and a writer. Whether this work is destined to add to his fame as an author, we think doubtful: yet we have seen it highly praised, and we will not gainsay the good thus spoken.

A VINDICATION OF THE RIGHTS OF WOMAN, &c. &c. by *Mary Wollstonecraft*: New York, A. J. MATSELL.—"The evil that men [and women too] do, lives after them;" and here at the distance of half a century almost from its first publication, we have a new edition put forth of the original from which the Fanny Wrights and other men in petticoats have imbibed their crude notions of the social system, and desolating views of the rights and dignity of women. It is a poor compliment to the spirit of the age, and to the state of society with us, that ensouragement should be supposed to exist for such a work as this. We hope the event may disappoint the calculations of the publisher.

CHARACTERISTICS OF WOMEN, MORAL, POETICAL AND HISTORICAL; by MRS. JAMESON, author of a Diary of an Ennuyée 2 vols.: Philadelphia, *Carey, Lea & Blanchard*.—It is not without design that we place these two works on women, and by women, in juxtaposition; for truly they are bane and antidote; and just in the degree that all well ordered minds and real admirers of the worth of women must deplore the wild, licentious, gross and impracticable views of Mary Wollstonecraft, they will rejoice at seeing the true and noble "characteristics of women," set forth so eloquently and illustrated so happily by Mrs. Jameson in these volume. We cannot more satisfactorily explain the aim of this delightful book than by letting the author speak for herself in the annexed quotation from the introductory dialogue:

Alda.—I have endeavored to illustrate the various modifications of which the female character is susceptible, with their causes and results. My life has been spent in observing and thinking; I have had, as you well know, more opportunities for the first, more leisure for the last, than have fallen to the lot of most people. What I have seen, felt, thought, suffered, has led me to form certain opinions. It appears to me that the condition of women in society, as at present constituted, is false in itself, and injurious to them,—that the education of women, as at present conducted, is founded in mistaken principles, and tends to increase fearfully the sum of misery and error in beth sexes; but I do not choose presumptuously to fling these opinions in the face of the world, in the form of essays on morality, and treatises on education. I have rather chosen to illustrate certain positions by examples, and leave my readers to deduce the moral themselves, aud draw their own inferences.

Medon.—And why have you not chosen your examples from real life? you might easily have done so. You have not been a mere spectator, or a mere actor, but a lounger behind the scenes of existence—have even assisted in preparing the puppets for the stage; you might have given us an epitome of your experience, instead of dreaming over Shakspeare.

Alda.—I might so, if I had chosen to become a female satirist, which I will never be.

Medon.—You would at least stand a better chance of being read.

Alda.—I am not sure of that. The vile taste for satire and personal gossip will not be eradicated, I suppose, while the elements of curiosity and malice remain in human nature; but as a fashion of literature, I think it is passing away:—at all events it is not my *forte*. Long experience of what is called "the world," of the folly, duplicity, shallowness, selfishness, which meet us at every turn, too soon unsettles our youthful creed. If it only led to the knowledge of good and evil, it were well; if it only taught us to despise the illusions and retire from the pleasures of the world, it would be better. But it destroys our belief—it dims our perception of all abstract truth, virtue, and happiness; its turns life into a jest, and a very dull one too. It makes us indifferent to beauty, and incredulous of goodness; it teaches us to consider *self* as the centre on which all actions turn, and to which all motives are to be referred.

Medon—But this being so, we must either revolve with these earthly natures, and round the same centre, or seek a sphere for ourselves, and dwell apart.

Alda—I trust it is not necessary to do either.—While we are yet young, and the passions, powers, and feelings in their full activity, create to us a world within, we cannot look fairly on the world without: all things are then good. When first we throw ourselves forth, and meet burrs and briars on every side, which stick in our very hearts—and fair tempting fruits which turn to bitter ashes in the taste, then we exclaim with impatience, all things are evil. But at length comes the calm hour, when they who look beyond the superficies of things begin to discern their true bearings; when the perception of evil, or sorrow, or sin, brings also the perception of some opposite good, which awakens our indulgence, or the knowledge of the cause which excites our pity. Thus it is with me. I can smile,—nay, I can laugh still, to see folly, vanity, absurdity, meanness, exposed by scornful wit, and depicted by others in fictions light and brilliant. But these very things, when I encounter the reality, rather make me sad than merry, and take away all the inclination, if I had the power, to hold them up to derision.

Medon.—Unless by doing so, you might correct them.

Alda.—Correct them! Show me that one human being who has been made essentially better by satire! O no, no! there is something in human nature which hardens itself against the lash—something in satire which excites only the lowest and worst of our propensities. That line in Pope—

> I must be proud to see
> Men not afraid of God, afraid of me!

—has ever filled me with terror and pity, and sends me to think upon the opposite sentiment in Shakspeare, on "the mischievous foul sin of chiding sin." I remember once hearing a poem of Barry Cornwall's (he read it to me,) about a strange winged creature that, having the lineaments of a man, yet preyed on a man, and afterwards coming to a stream to drink, and beholding his own face therein, and that he had made his prey of a creature like himself, pined away with repentance. So should those do, who having made themselves mischievous mirth out of the sins and sorrows of others, remembering their own humanity, and seeing within themselves the same lineaments—so should *they* grieve and pine away, self-punished.

Medon.—'Tis an old allegory, and a sad one—and but too much to the purpose.

Alda.—I abhor the spirit of ridicule—I dread it and I despise it. I abhor it because it is in direct contradiction to the mild and serious spirit of Christianity; I fear it, because we find that in every state of society in which it has prevailed as a fashion, and has given the tone to the manners and literature, it marked the moral degradation and approaching destruction of that society; and I despise it, because it is the usual resource of the shallow and the base mind, and, when wielded by the strongest hand with the purest intentions, an inefficient means of good. The spirit of satire, reversing the spirit of mercy which is twice blessed, seems to me twice accursed;—evil in those who indulge it—evil to those who are the objects of it.

This is surely fine writing, and just and delicate thinking. The examples chosen from Shakspeare are divided into four classes—*Characters of Intellect*, which include Portia, Isabella, Beatrice and Rosalind; *Characters of Passion and Imagination*, under which class, Juliet, Helena, Perdita, Viola, Ophelia and Miranda, are introduced: *Characters of the Affections*, illustrated by Hermoine, Desdemona, Imogene and Cordelia; and *Historical Characters*, embracing Cleopatra, Octavia, Volumnia, Constance of Bretagne, Elinor of Guienne, Blanche of Castile, Margaret of Anjou, Katharine of Arragon, and Lady Macbeth. Those to whom Shakspeare is familiar, will see at once that this range embraces almost every possible modification of female character; but we may venture to say even to those who think they understand Shakspeare best, that they will find new views of his beauties developed with such taste, such fineness of perception, and delicacy of feeling combined with reach and strength of intellect, as will alike surprize and gratify them. Well has Mrs. Jameson merited of her own sex, and thrice well of ours which is exalted and improved by all that exalts woman, by the publication of these admirable "Characteristics."

THE DEATH OF THE RIGHTEOUS, *or the way of Holy Dying*, translated from the French of *M. de la Placette*, by LEWIS P. BAYARD, A. M. Rector of St. Clement's Church, N. York, 1 vol. New York: *Protestant Episcopal Press*, and *Swords, Stanford & Co.*—The aim of this valuable little volume is to teach men how to die, by instructing them how to live as christians. It is a profitable lesson—and well taught in these pages—of which the translation is so good, as not to have the air of a translation at all.

THE BOOK OF BEAUTY; a Collection of Tales Poems, &c., by L. E. L.; Philadelphia, *Carey and Hart.*—The beautiful English book, of which the reprint before us furnishes the letter press only, is remarkable for the superiority and excellence of its engravings. Here we have the literary portion of the volume handsomely printed, and in this shape it will be more generally read than in the splendid original—and it is worth reading.

THE WESTMINSTER REVIEW, } Philadelphia.
THE FOREIGN QUARTERLY REVIEW, }

Mr. Condy Raguet, well known as a champion of free trade under "the banner of the Constitution," has undertaken to republish in this country these two distinguished foreign periodicals, and at a price much below that at which they could be obtained from abroad. The first number of the American edition is now before us; and though we dislike the double columns and the smaller type, we are aware at the same time, that in order to render such works cheap, and thereby put them into general circulation, these expedients are indispensable. Our best wishes attend the enterprize. The agents in New York are *Bliss & Wadsworth.*

THE LADIES' MEDICAL GUIDE, &c. &c. By *Richard Reece, M. D.* Philadelphia: *Carey, Lea, & Blanchard.*—We do not like Medical guides for either ladies or gentlemen—for they are seldom used with discretion; and frequently, though not resorted to for instruction in time of need, distemper the fancy of readers, who cannot distinguish surely the difference in cases, and thus they produce disease by the very means intended to prevent it. In all ordinary cases a mother is the best medical guide for young women, and when her skill and experience are at fault, send for the regular physician.

THE SELECT JOURNAL OF FOREIGN PERIODICAL LITERATURE, No II.—Boston: *Charles Bowen.*—It is a pleasure to read a journal printed on such paper, and with such a clear type as this. We are free to confess it—though it may have the effect of placing us in the category of *growing old* persons—that our eyes are much more sensible to the superiority of clear type and white paper than in days of yore.

The selections, literary and critical, of this number, are made with judgment and good taste, and are of great variety. The Quarterly, the Foreign Quarterly, the Asiatic Journal, and the Magazines generally, contribute to its contents, which are not the less interesting for being occasionally condensed from the original articles, and explained by short editorial notices.

PROTESTANT EPISCOPAL PULPIT, Vol. III., No 2.—New York: *John Moore.*—Tke Sermon which constitutes this number is on the "Unity of God," by the Rev. *Benjamin Hale*, Professor of Dartmouth College, N. Hampshire.

THE AMERICAN LANCET; Philadelphia, TURNER & SONS.—This is a periodical of which four numbers have been issued. Some valuable original communications, as well as excellent selections from foreign journals have appeared, and give promise of its being a channel through which much information will be disseminated. 'Although we cannot,' says a young medical friend, 'exactly coincide with some of the articles on the medical institution of this country, which are rather too sweeping, still the merits of this journal are of a high order. The proper education of a physician is a matter in which the whole community is interested; and as to this subject particular attention is to be paid in its pages, it alone entitles it to the patronage, not only of the medical profession, but of the public at large.'

ADDRESS ON THE PATRIOT CHARACTER OF THE TEMPERANCE REFORMATION; delivered before the Charleston Temperance Society and the Young Men's Temperance Society, on Tuesday evening, 26th Feb. 1833. BY THOMAS S. GRIMKE.—The great cause of Temperance has found an able and eloquent advocate in this distinguished Philanthropist.

AMERICAN TURF REGISTER, for April; Baltimore, J. S. SKINNER.—Among the unfailing attractions of this number is a memoir, with a capital engraving, of the famous Virginia horse *Timoleon*, a *Sir Archey* colt. This must, from the dimensions given in a tabular form, have been one of the tallest and largest race horses ever foaled. He was two hands or eight inches taller at the withers and the loins, than Eclipse.

PATTERSON'S CÆSAR, VALPY'S GREEK GRAMMAR, and THE LATIN READER, are the titles of three duodecimo volumes. which we have received from Mr. Dean, the Publisher, and which are for sale by Collins & Hannay, and others. The edition of Cæsar is from that of Oberlin, and to the emendations of other learned individuals adds the revision of its present Editor, David Patterson, A. M. It is illustrated with English Notes, and is supplied with an ample historical and geographical index, at the end. The Grammar is the 8th edition of Valpy's popular work, enriched with additions by Professor Anthon, who, from the Grammar of Buttmann, Golius, Weller and others, and with the assistance of the last English edition received direct from Dr. Valpy, has compiled a work that will prove invaluable to the young Hellenist. The work contains some observations on the Sanscrit tongue, and the Dissertation of Thiersch on the Homeric Digamma, among other improvements upon the last edition. The next book, the Latin Reader, is founded upon the celebrated work of Jacobs and Doring, with Notes and Illustrations, by John D. Ogilby, Principal of the Grammar School of Columbia College. The present being the fourth American, from the seventh German edition, it would be idle to pass here upon a work of such established reputation. All three of these works bear the strong recommendation, as school books, of being printed in a neat, compact, and cheap form. *

THE LIFE OF A SAILOR; 2 vols.; HARPERS.—This is an agreeable piece of book making, containing a great variety of sea adventures strung together in an easy and entertaining manner, with no great literary pretensions, and some marks of carelessness. The work is a reprint from an English book—a little matter, by the by, which should have been mentioned in the title page, instead of only putting it forth as written "by a Captain in *The Navy*," (quere, what navy is THE navy?) and leaving us as much in doubt as to the place of birth, as to the parentage of the thing. A glance at the contents of the book, however, soon solves any question as to the source whence it emanates. The terms "refined American diction," (p. 223,) "nasal intonation wonderfully discordant to the musical (!) ears of an Englishman," (p. 227,) and occasional sneers at "the free-born Americans," peppered over the pages, betray at once a Grub street origin; and show that though the general materials of the work may really have been supplied by an officer and man of liberal observation, there must have been some Cockney hand in the working up, to have made a Georgian planter talk like a Connecticut pedlar, and put the farrago of one of Mathew's Yankees in the mouth of a Savannah merchant. This want of truth to character, however, though it may raise a doubt as to the justness of the more important representations of the author, occupies but a small portion of the work, there being many animated descriptions of fights and storms at sea, and sundry accounts of the land voyages of the true blue jackets. Several of these we have already given in anticipation; and those of our readers who remember the well-told account of the death of Sir Peter Parker, and the destruction of a boats's crew by sharks, will want no more striking scenes to recommend "The Life of a Sailor." *

THE TREASURY OF KNOWLEDGE AND LIBRARY OF REFERENCE; Connor & Cooke.—The third and last volume of this valuable publication has just appeared and completed one of the most useful little works that has for some time come from the press. Upon looking through the three parts together, we find no occasion to alter the favorable opinion heretofore expressed concerning them individually, except that in the Dictionary of Phrases, the proof-reader has overlooked some blunders of the press, which might tend somewhat to lessen the confidence of a casual observer in the authenticity of other parts of the work. In one case, for instance, there is a French proverb marked as Italian, and in another as Spanish. Then there are such misprints as, *sono*, (are,) Italian, for *sonno*, (sleep,)—*pobreza* (Spanish) for *probeza*; for *spesso, spepo; bisoyna* for *bisoqua; mittere* for *mettere*, &c.,—a degree of confusion of tongues which no oversight should have allowed to occur. To show how well other parts of the work are executed, however, we quote the following account of the most ancient city in the new world, and one whose growing commercial relations with our own country makes it desirable that we should be more familiar with its condition. *

MEXICO, a celebrated city and capital of the republick of Mexico, situated in the state of the same name, 7400 feet above the level of the sea, 252 miles west of Vera Cruz, 300 S.W. of Tampico, on the Gulf of Mexico, and 270 north of Acapulco, on the Pacifick Ocean. From Washington City, United States, it is 2750 miles. The present city occupies only part of the site of the ancient Mexican city of Tenochtitlan, which was founded, according to the traditions of the natives, in 1331, or two centuries before its conquest by Cortez. The location is near the Lake Tezcuco, the waters of which, with the other lakes in the vicinity, have been on the decrease for several centuries. "Mexico is undoubtedly," says Humboldt, "one of the finest cities ever built by Europeans in either hemisphere. With the exception of Petersburgh, Berlin, Philadelphia, and Westminster, there does not exist a city of the same extent which can be compared to the capital of New Spain for the uniform level of the ground on which it stands, for the regularity and breadth of the streets, and the extent of the publick places. The architecture is generally of a very fine style, and there are even edifices of a very beautiful structure. Two sorts of hewn stone give to the Mexican buildings an air of solidity, and sometimes of magnificence. The balustrades and gates are all of Biscay iron, ornamented with bronze; and the houses instead of roofs, have terraces like those of Italy and other southern countries."

Many of the streets are nearly two miles in length, perfectly, level and straight, with the ends terminating in a view of the mountains that surround the valley. The houses are in general of a uniform height, most of them having three stories, each from 15 to 20 feet high. The fronts of most of the houses are painted in different colours, viz. white, crimson, brown, or light green, and retain their beauty for many years, owing to the dryness of the atmosphere. The city is built in the form of a square of about four miles on a side. The *Plaza Major* is one of the finest squares to be seen in any city in the world. The east side is occupied by the cathedral, a magnificent building; the north by a splendid palace, formerly occupied by the viceroys; the south by a fine row of houses, in the centre of which is a palace, called the *Casa del Estada*, built on the site of the palace of Montezuma; and on the west is a range of shops, publick offices, granaries, &c., with piazzas in front. Near the suburbs, to the north, is the Alameda, or great promenade.

The botanical garden is small, but rich in rare and interesting productions. It is handsomely laid out in the Spanish fashion, with flagged walks, bordered with elegant large pots of flowers. In the centre is a large stone basin, supplied by a fountain with water.

The publick buildings are very numerous. A late traveller counted 105 cupolas, spires, and domes, within the city, and there are 56 churches, besides the cathedral, 38 convents, namely:—23 of monks and 15 of nuns. The Franciscan convent is a large establishment, with an income of about 90,000 dollars, arising principally from alms. The hospital is well supported, and the mint is the most extensive establishment of the kind in the world. The university, founded in 1551, and the public library, are worthy of notice, as well as the academy of painting and sculpture.

The dwelling houses of the citizens, although many of them are elegant, lofty, and spacious, are not as well furnished as those of cities in the United States. The city is supplied with water by aqueducts, and the canal of Chalco which extends from the lake of that name to the city, affords an avenue for conveying in canoes, the products of the surrounding country, and the fruits, flowers, and vegetables, raised in the beautiful gardens in the vicinity, to market. The remains of the celebrated floating gardens, called Chimpas, are near the lakes, and are now stationary, surrounded by a broad ditch.

Mexico was formerly subject to inundations from the lakes, to prevent which a drain has been cut through a gap in the mountains, 12 miles long and 300 feet wide, at great expense. The climate is bland, and the atmosphere pure and healthy. There are many pleasant rides out of the city; among others, that to the village of Tacubaya, four miles distant.

This city enjoys an extensive commerce, which is carried on through the ports of Acapulco, on the Pacifick, and Vera Cruz, Alvarado, and Tampico, on the Atlantick Ocean. Merchandise is transported on mules from these seaports, and companies of traders with the goods generally go armed to protect themselves from robbers, who occasionally frequent the roads to the capital.

The people are much addicted to pleasure and gambling. The ladies, when they are seen in the the streets, are dressed in black, except on holydays and other publick occasions, when their dresses are gay. They generally are in carriages when they appear in publick, and but seldom on horseback. The dress of the higher classes of the men is similar to those of Spain. Long cloaks are worn in the streets, and light jackets in the houses. American, English, and French manufactures of cotton and wool, and German linens, are more worn. English earthenwnre, beer, and porter, are also in great request.—Some breweries have however been established in the city.

Beggars, called *leperos*, similar to the lazzaroni of Naples, are very numerous in this city; they are said to amount to 20,000.

The ancient city of Mexico, or Tenochtititlan, was taken by Cortez, in 1521, after a siege of 75 days, when a great slaughter of the inhabitants took place. The houses were razed to the ground, and the present city built on the ruins. Lat. 19 26 N., lon. 103 45 W.

FOREIGN INTELLIGENCE.

Later from England.—The Pacific, Capt. Waite, from Liverpool, brings us London papers to the 16th ult., inclusive. The enforcing bill made slow progress in the House of Commons. The Times of the 16th thus remarks on it—

Very little progress was last night made in the Irish Disturbance Bill. Only 3 clauses out of 41 were got through. Yet, notwithstanding this delay, the bill, we take for granted, will pass the House of Commons, in spite of the repugnance of its principles which pervades the whole liberal majority of that assembly, and which has been frankly acknowledged by the very Ministers, who felt themselves constrained to bring in that unusual and most offensive measure. It is certain that in the progress of the discussions, both in doors and out, upon some of its obnoxious clauses, the symptoms of an increasing dislike to even the temporary admission of such intruders upon our domestic policy as courts-martial, domiciliary visits, and suspensions of the Habeas Corpus Act, became more perceptible every hour; and we had hopes, not many days ago, that the bill, ere it passed, would have been cleansed of most of its unwholesome attibutes. But, unhappily, the activity of murderous outrage in Ireland has proceeded without a moment's relaxation. As if to refute all objections and all reasonings drawn from the spirit of the constitution itself, and from general experience of its efficacy in the maintenance of order, and in the protection of peaceable and unoffending citizens from violence,—as if to deride and mock the simpletons who love to cherish the forms of freedom, for the sake of that precious substance of which they are the types and guarantees,—as if to take away from English gentlemen, jealous of the rights of their fellow-subjects, all pretence for further opposition to this bill, and from the Government all excuse for failing to push it vigorously through the remaining stages of legislation, the Irish ruffians and assassins never once suspended the course of their barbarities. To say nothing of outrages less critically timed, as well as less conspicuous from the station and character of the victims, the foul and brutal murder of Mr. Leonard transpired in London just the day before that appointed for going into committee on the bill, and the minds of members of Parliament were thus sickened by fresh evidence of the audacious contempt for law and confidence of impunity exhibited in the noon day murder of a gentleman whose only crime, it is said, was that of threatening to recover by legal process those arrears of rent which he had no other means of obtaining.

The state of Don Pedro becomes more critical—want of provisions in Oporto being the chief difficulty; but it is said that both recruits and provisions were on the way.

A new Ambassador from Holland, M. Dedel, had arrived in London and had his first audience; and that would arrest for a time at least, we presume, the forward movement of the French army and English fleet, which was threatened after the 15th March.

The Egyptians and Turks had certainly concluded an armistice; so that the advance of Russia to the aid of its late enemy, the Turks, was checked.

Lord Durham had resigned the Privy Seal—on the score of domestic affliction, as one version says,—of his political views differing from those of his colleagues, according to another version.

[*From the London Times, of March* 16.]

Paris.—A French brig of war arrived at Toulon on the 7th inst. from Napoli di Romania, which place she left on the 16 ult. She brings despatches to the French Government announcing that King Otho had arrived at Napoli on the 6th. On the following day he published a proclamation, in which he professes a multitude of good intentions and wishes for the future prosperity and welfare of his newly adopted country. He reeommends that all internal dissensions should cease, and promises to use his utmost efforts that all cause for their continuance should be removed. He also engages to protect the religion of the Greeks.

The Greeks will not perhaps be greatly deserving of blame if King Otho's reign proves a short one. How can it be expected that they should be sincere in their allegiance to a man who is so entirely a stranger to them as a Bavarian Prince, and whom not one of them had ever dreamt of choosing as their King? The Greeks, besides, are Republicans in their hearts. The sentiment of republicanism, in a manner, is born with them. Even under the iron yoke of the Turks, the unconscious possession of that sentiment was evinced in all their acts, in all their words. Their institutions were of a republican form, though subject to the despotism of the Turks.

It appears that Colcotroni was still at open war with the Government, and it was publicly affirmed and believed at Napoli that he was supported by Russian aid. It is not however probable that the Russians would encourage a war against the authority of the very man for whom their influence has so materially contributed in procuring the throne of Greece. There were several English, French, and Russian ships of war in the port of Napoli, when King Otho arrived, with the three Admirals of the same Powers, commanding the station in the Archipelago. They had, it seems, made it a point to be present at the landing of the King whom their Governments had sent to Greece.

By the packet from Havre, we have no later intelligence than before received. We publish, however, some extracts from our correspondent at Havre, of March 10th, giving a bird's-eye view of things.

"I have a letter of the 19th ult. from Mahon; the United States and Constellation were there; the John Adams is now at Marseilles, but will quit for Mahon on the 15th."

"The papers will inform you of what is passing here, There has been some *sparring* in the Chamber of Deputies during the debate upon the pension list. Baude and Dubois, two Councillors of State, took part against the Government, and have been dismissed in consequence. It is the opinion of some, that this rigid step may lead to a change of Ministry, but if it should, I am well persuaded it will not lead to a change of policy.

"The last advices from the Hague and London, speak morefavorably of an early arrangement of the Dutch and Belgian question. It appears a malignant fever or cholera is raging in the armies of Miguel and Pedro.

It is believed that the affair of the Porte and the Pacha of Egypt, will be settled by the intervention of the great powers, or some of them.

Ireland is in a dreadful state. The Whigs have some difficult matters to manage. The emancipation question, it is said, will be brought forward soon. This concerns us, and the sooner we prepare for it the better."

Later from Europe.—The George Washington, from Liverpool of 24th ult., furnishes later dates, but nothing very material. Our own files are not yet received. We take from the Journal of Commerce and the Courier & Enquirer. The cause of Don Pedro in Portugal seems to have revived a little, by a check given to an attack on Oporto by the troops of Miguel. In Paris, the two men charged with shooting at Louis Philippe were acquitted, as were the prisoners taken in the steamboat which landed the Duchess of Berri last year in the South of France.

The Irish Enforcing Bill hastened slowly through the House of Commons, but will ultimately prevail. The 23d of this month, it is perceived, is the day fixed by Lord Althorp for introducing the ministerial plan of Slave Emancipation in the West Indies. We shall look anxiously for the development of that plan.

From a passenger we learn that the Ministry were nearly left in a minority on the evening of the 21st in the House of Commons, on a motion of Mr. *Atwood*, of Birmingham, respecting the currency. The division gave only 26 majority to Ministers.

The *Rev. Ed. Irving*, who has made such a noise in the world, has been formally deposed as a minister of the Scotch Church by the Presbytery of Annan.

A serious accident occurred at Edinburgh, at the sale by auction of Lord Eldin's Pictures. Just as Mr. *Winstanley*, the auctioneer, was holding up a celebrated *Teniers* to the admiration of a large assembly, the flooring on which they stood gave way, and the auctioneer, pictures, and part of the crowd were precipitated into the room beneath. Many limbs were broken, and one life, that of *Alexander Smith*, Esq., banker, was lost.

Turkey.—Important advices have been received at Vienna, by a Dragoman, despatched from Constantinople by the Internuncio, at the desire of the Reis Effendi. It appears that the French Admiral, Roessin, with the concurrence of the English Chargé de Affaires, Mr. Mandeville, had prevailed on the Porte to accept the mediation of France between the Sultan and the Viceroy of Egypt, and that a treaty has been signed by the Frenchman and the Ottoman minister, by which the Porte cedes to the Egyptians the whole coast of Syria from Tripoli to the borders of Egypt, with a tract in the interior which includes Jerusalem (but not Damascus.)

Aleppo, Scanderoon, and all the older conquests of the Egyptian army, are to be restored to the Ottoman Porte. A messenger had been despatched to Ibrahim Pacha with intelligence of this convention, and a declaration that if he advances farther into Asia Minor, France will consider Egypt as her enemy. Little doubt is entertained but that this message will stop Ibrahim in his career, and that his father will not hesitate to make peace on the terms proposed. The Russian fleet, which had arrived at the mouth of the Bosphorus, being no longer wanted, will return to Sebastopol.

Mecca, Dec. 21.—Here in the Holy City, preparations are making for the solemn expiation of the anathema pronounced by the Sultan and the Mufti against Mahemet Ali and the Princes of his family. The ceremony is fixed for the beginning of spring, and is considered in all Arabia as the commencement of Arabian nationality and independence. The Sheriff of Mecca expects from Constantinople the firman of the Sultan, relative to the restoration of Mehemet Ali to all his dignities and honors. The hatti scheriff to this effect is to be read inthe Kaaba, and the galleries and 240 pillars of that temple are to be splendidly adorned on this occasion. It is also expected that Mehemet Ali will shortly receive homage as King of Egypt, in Cairo and Syria in Damascus.

Such an event is looked for with the more impatience by all the faithful, as it will put an end to all the ravages of war, and restore tranquility both to Egypt and the Ottoman Empire. The priests in particuler seem to wish for it, as they may then expect more numerous caravans of pilgrims in the spring, and richer presents from the new dynasty.

[*From the Courier and Enquirer.*]

LATEST FROM BUENOS AYRES.—We have received by the brig Erie, Capt. Penniger, a file of the *Gaceta Mercantil* of 14th Feb., and the British Packet of the 9th. We have already laid before the public the particulars of the taking possession of the Falkland Islands by the British. It appears that the excitement which this event produced among the people of Buenos Ayres had in a measure subsided.

BUENOS AYRES, Feb. 9.—We feel considerable pleasure in having this week to notice an abatement in the excited feelings respecting the late late event at the Falkland Islands. It is now a question left for the discussion of the respective governments. In the first moments of effervescence, it was natural to suppose some ebullition would take place, but we never for one instance thought that insult or molestation would be offered to British residents for the political acts of their government, and we rejoice to find that our opinion thereon has been fully confirmed.

SUMMARY.

Mr. Audubon returned to this City yesterday.—From him we learn, and it affords us pleasure to state the fact, that within the last six months more than fifty subscribers have been added to his list, for his great American Work on Ornithology. These at $800 each, make the sum of $40,000.—[Philad. Com. Herald.]

We would call the attention of our readers to the prospectus which appears in our columns, for the opening of a female Seminary in this village on the first of May next, under the immediate charge of Miss A. Riley, and the general superintendence of the Rev. Reuben Sherwood. The project is one which cannot fail to meet the approbation of every individual of this community, to whom the prosperity of this rapidly growing settlement is a matter of interest. Institutions of the character intended to be maintained in the one in question, have a bearing and importance beyond the immediate accomodation and advantages accruing to the limited number in the neighborhood who may have occasion to avail themselves thereof. They give a general tone and character to the manners and morals of the place, and in that view alone are entitled to the zealous co-operation and support of every respectable resident. It will be seen by reference to the prospectus, that the terms are sufficiently moderate to afford a very general access to this establishment No similar institution, we venture to say, combining so many advantages of location with so high an order of tuition, will be found as reasonable in the respective charges.

We know of no location offering greater advantages for the establishment of an Academy for boys, and have no hesitation in saying, that should one be organized upon a proper basis, it might be rendered profitable to all parties concerned. We trust that amidst the multitude of improvements in agitation, we may shortly hear of a Seminary for boys becoming a prominent one.—[Ulster Star.]

[*From the Baltimore Patriot, of Tuesday evening.*]

GREAT FIRE.—An endorsement on the Western Mail way-bill, dated Hagerstown, April 15, says—"THE TOWN OF CUMBERLAND IS BURNT." Cumberland is situated in Alleghany county, (Md.) on the Potomac River, and about 130 miles from Baltimore. The conflagration it is presumed cannot have been so extensive as the endorsement implies—the town being nearly equally divided by a broad stream. The ravages at the worst, it is probable, have not extended beyond one or the other side of this natural division. The eastern side is the most compactly built, and being chiefly of wood, would suffer most severely from such a calamity.

[*From the Philadelphia Chronicle.*]

Mr James Page, we understand, is appointed Post Master in this city; with directions to supersede Mr. Sergeant on the first of May.

FROM MATANZAS.—We learn from Capt. Staples of the brig Haiti, from Matanzas, that the Cholera was raging very badly at Matanzas when he left, 5th April, from 200 to 250 dying of a day. The Governor had issued a proclamation, forbidding any of the launches or boats manned by the negroes of the place from doing any work; and also forbidding the blacks from coming from the interior during the prevalence of the cholera there—it had got among the shipping, but very few had died—business very dull.

The corner stone of the Monument to be erected to the memory of the Mother of Washington, near this place, will be laid on Tuesday the 7th day of May next.—The President of the United States will be present to perform the chief ceremony. Accompanied by some of the Heads of Departments, he will arrive in town on the previous evening, the 6th of May. The necessary arrangements for the occasion will no doubt be made known in due time.—[Fredericksburg Herald.]

Capt. BACK and his associates arrived at Montreal on Tuesday last, where he intends to remain until the Lakes are sufficiently open to admit of a passage and in the mean time, he will make arrangements for engaging thirteen Canadians, equal to the important task this expedition requires. In a note to the Editor of the Herald, in reference to the attentions paid him in this city, and the notice we took of his departure hence, he says—"Nothing would be more agreeable to me than to acquiesce with your wishes, and endeavor to express the deep sense of gratification which I shall always feel for the warm and enthusiastic reception that awaited the arrival of my little party at New York. Many were the letters also directed to me from different parts of the Union, expressive of the interest which the writers took in the fate of the expedition; nor can I forbear mentioning the very spirited and handsome conduct on the part of the Directors of the Hudson River Steamboat Association, who tendered the Ohio for our conveyance to Albany."

The Herald adds—"we have seldom been so wrought upon by such acts, so honorable to human nature, so happily influential upon all that contributes to the welfare of the human family. May the reception of this band in New York, so delightful, so animating, be the forerunner of final success in their heroic undertaking. They have brought with them, we doubt not, the prayers and good wishes of our countrymen and enlightened Europe; they have received those of the United States, wafting them on to their destined object; and shall not we unite, who are almost at the last stage of civilization where they repose, in aiding and encouraging them in their noble pursuit?"

CITY HALL, Saturday, March 6.

Special Meeting of the Board of Health.

His Honor the Mayor in the Chair.

The Chairman stated that the meeting had been called, for the purpose of presenting to the Physicians of the Second Ward, the pieces of Plate which had been voted to them by a resolution passed the 22d December, 1833, in testimony of the high respect entertained by the Board, for the liberality and benevolence displayed by those gentlemen, in their gratuitous attendance on the poor of that Ward, during the prevalence of the Cholera.

The names of the Gentlemen are

Doctor Thomas Cock	Doctor Jacob F. Gilford
" E. Mead	" Lynde C. Ferris
" Benj. B. Coit	" C. F. Wilcoxson
" N. Edson Sheldon	" J. C. Wright.
" Peter Pratt	

One of the number, Doctor Gerardus A. Cooper, fell a victim to the cholera during the gratuitous exercise of his service as Physician.

The silver vases, which were elegantly finished, were prepared by Mr. William Gale, an artist of the Second Ward. Those presented to the physicians bore the following inscription:

"Presented by the Board of Health to ——, for professional services gratuitously rendered to the poor of the Second Ward during the prevalence of the cholera, A. D. 1832."

Two smaller vases were likewise presented to Master Edward Bruce, and Miss Catharine Cooper, the children of the late Doctor Cooper.

A dreadful accident occurred at Bedford on Thursday last, when a man of the name of Macintosh lost his life when engaged in clearing his farm. He had succeeded in cutting a very large tree, and while falling it unfortunately struck another, which broke and striking him on his head, instantly deprived him of life. It is a singular circumstance that his wife, as if with a presentiment of some such accident, cautioned him against going to the woods, that day; but under the excuse of clearing the barn, he left his house and having subsequently commenced the felling of a tree, the catastrophe occurred, and deprived a wife of an industrious husband, and a large family of a kind and generous parent.—[Montreal Gaz.]

MELANCHOLY SHIPWRECK.—The schooner Elizabeth, of Bordentown, (N. J.) Douglass, master, from Plymouth, (N. C.) with a cargo of staves and shingles, bound to Kingston, (Jam.) sailed from the former place on the 7th of March, and from Ocracock on the 13th, and on the 16th following, sprung a leak, and immediately filled with water. On the next day, her foremast was carried away. The crew, with the exception of Thos. Bozman, mate, who was drowned, Nathan Phelps, and Samuel M'Carty, seamen, who perished for want of water, were taken off the wreck ten days after, (during which time they had nothing to subsist on but a few potatoes) by Captain Harding, of schr. Banner, from Plymouth, bound to Kingston, (Jam.) who transferred them, on the 31st. in lat. 26, lon. 69, to the schr. Jason, Duncan, of and for Folly Landing, from St. Thomas, which put into Hampton Roads yesterday, for the purpose of landing them. The surviving crew lost every thing but the clothes which they had on. Mr. Bozman and Mr. Phelps belonged to Plymouth (N. C.) and McCarty to Baltimore. Captain Douglass takes this opportunity, in behalf of himself and surviving crew, to return thanks to the above named gentlemen, for their kind attentions to them.—[Norfolk Herald.]

NEW ORLEANS, MARCH 28.—The steamer *Reaper*, Capt. Harrison, which left here for Pittsburgh on Tuesday evening, was snagged about 8 o'clock last night near Lafourche, and sunk instantaneously.—We have understood from one of the passengers that nothing was saved, and that several lives were lost. —[Louisville Courier.]

BURNING OF THE TREASURY BUILDING.—The Globe of yesterday publishes the official report to the President of the investigation of this occurrence. It is signed by Secretaries Livingston, McLane and Cass, (Mr. Woodbury being absent in the execution, according to the report, of "some official duties,") by the Attorney General Taney, and the Postmaster General Barry. Chief Justice Cranch presided at the investigation.

The report and documents are too long to re-publish, and are moreover of no general interest. The result of the inquiry is given in these words—"We have endeavored in vain to trace the origin of the fire, and are unable to impute it to any particular cause." Respecting the papers destroyed, although it cannot be settled "with precision" what they are, the report says—"We believe very few papers have been lost, that are of much importance to the government or to individuals, and that the great mass of the most valuable books and papers have been saved."

CHARLESTON, S. C. April 8.—*Important Decision.*—The Appeal Court this morning reversed the decision of Judge Bay in Chambers, made in the case of George Granstein, that an Alien on application for Citizenship is bound to take an oath of Allegiance to the State, in addition to the oath required by Act of Congress.—[Patriot.]

MOBILE, March 29.—*The Freshet.*—We have heard from a gentleman of respectability who came down the Tombigbee yesterday, in the Hunter, of the distressing particulars of the almost unparalleled rise of that river. At Demopolis, the rise is said to be not less than 60 or 70 feet. It has every where overflowed its banks on one or both sides, and in some places spread out to a sheet of 5 or 6 miles in width, looking as it was expressed, "like a sea."—The plantations are of course inundated, and in several instances, our informant saw people white and black, and of all ages *on the roofs of their buildings!* which were apparently on the point of being borne away by the overwhelming, and still increasing flood. Great numbers of drowned cattle were seen, and many others struggling in the last effort of self preservation, unable to reach the shore, which sometimes receded by rapid stages. It was not stated that any human lives had been lost, but the loss in buildings and live stock must be great.

We learn from a gentleman direct from the interior, that the Alabama River has risen to a height greater than it has attained in many years. At Cahaba, the water was on a level with the floor of the State House, and it was supposed the term of the Circuit Court would fail in consequence. The damage to the plantations on the rivers must be immense.

SHIPWRECK.—The ship Anacreon, Capt. White, from Liverpool, (sailed about the 24th Feb.) bound to City Point, with a cargo of Dry Goods, Salt, Iron, &c. went ashore on Hog Island, on Thursday night last. Capt. White had two vessels along side for the purpose of taking out the cargo—the vessel will be lost.——[Norfolk Herald.]

FROM HAVANA.—Captain Chamberlin, of the brig Franklin, in ten days from Havana, reports that when he sailed, the cholera had a good deal abated. The deaths were supposed to be about one hundred and fifty a day. The official reports for the city and suburbs, made the whole number of deaths by Cholera, FOURTEEN THOUSAND SIX HUNDRED AND SIXTY FOUR.

The North River Steamboat Association are about to render the travelling on the Hudson most convenient. In addition to a morning and evening boat daily, there is, we understand, to be a third boat, leaving this city and Albany every day at 10 or 11 o'clock, so that each of these places, and every intermediate one on the river, will have three daily opportunities of intercommunication during the season of navigation. The price fixed, of three dollars for the whole distance, (meals being paid extra) every one will admit to be reasonable. The Albany, under her old and well known and esteemed commander, *Jenkins*, is now a magnificent boat indeed, and very fast. Forty-five feet have been added to her length, and in the distribution and decorations of the cabins convenience and good taste have been alike consulted. We have as yet only been on board of one other boat of this extensive line, the *Constitution*, and there, we think, a little brushing up, as to the fare of the table, and the costume of the waiters—who should not be permitted to move about the cabins in shirt sleeves—is needed.

Cholera at Havana.—Mr. Erben of this city, who returned recently from Havana, furnished us with the following official list of interments in the Roman Catholic burial ground, up to the 25th March, received from the hands of the Governor's Secretary at Havana.

	White.	*Black.*			*White.*	*Black.*	
Feb.	28	10	37	March.	13	31	81	120
March.	1	8	27	35	14	41	96	127
	2	5	16	21	15	35	139	174
	3	13	43	56	16	39	131	170
	4	14	40	54	17	30	132	162
	5	37	64	101	18	47	225	272
	6	13	52	65	19	41	194	235
	7	24	91	115	20	35	193	228
	8	24	65	89	21	24	211	235
	9	42	64	106	22	75	258	333
	10	43	92	134	23	60	254	314
	11	33	117	149	24	62	190	252
	12	38	90	128	25	54	207	261
Total						876	3107	3983

There are five other burial grounds, where no accounts are kept; but the number supposed to have been interred is between 2 and 3000. The death of Mr. Shaler and of the Bishop of Havana were calculated to shed deep gloom on the city.

Late and Important from Havana—*Cholera subsided.*—The brig Whim, Capt. Hatch, arrived here on Sunday last in 9 days from Havana, having sailed on the 4th inst. at which time the Cholera had *entirely subsided* and business had assumed its usual activity. The death of our Consul. Mr. Shaler, is confirmed.—Mr. Cleaveland was acting as Consul.

The President has recognized Andreas Anton Melly as Consul of the King of Saxony for the Port of New-York.

[*From the Boston Globe of Friday.*]

The Ship Hellespont.—The safety of this vessel, for which so much interest has been excited, is at length ascertained. The first favorable news on the subject was brought to Baltimore by the brig George and Henry, from Rio Janeiro. She reported the arrival there of a vessel from Boston on the 10th of February, after a short passage, but did not learn her name. It was presumed to be the Hellespont, as no other vessel from this port was expected to be there at that time.

We are now happy to state, that letters were received here last night which dispel all remaining doubt on the subject. Benj. T. Reed, Esq. owner of the Hellespont, received last evening a letter from Capt Wm. Henry, master, via Baltimore, dated Rio Janeiro, Feb. 10, 1833, in which he says, "I arrived at this place in the short and pleasant passage of forty four days—all well. The ship proves every thing I expected.

Another Melancholy Shipwreck.—The Schooner which was sunk below the Light Boat, in the heavy gale on Sunday night last, was the *Friends*, Capt. Anderson, from Newport's News, with a cargo of Sand for the Dry Dock. *All on board* (four in number) *went down with the vessel.* She lies in about 11 fathoms water. The schooner belonged to Capt. Freeman of Portsmouth.—[Norfolk Herald.]

The number of letters from foreign countries received at the Post Office in this city during the last two days, is upwards of *ten thousand.*

Our City.—Business has commenced unusually early this season, and present appearances indicate extended and successful operations. Our streets seldom, if ever, so early in the spring, have presented such bustle and cheering activity. The whole business community of the west, already appears to be in motion, and throngs of the enterprising merchants and traders of the interior of our state are constantly arriving, and opening the business campaign with us, or passing through, to take a look at the "world," that lies one hundred and fifty miles south. As the canal is not yet navigable, large quantities of merchandise, for the last ten days or two weeks, have taken their departure for the west by the way of the rail-road, which, incomplete and imperfect as its arrangements for the transportation of freight, at present, necessarily are, has enabled the merchants of Schenecteday and the neighbouring country, to get up their goods at infinitely less trouble and inconvenience than usual. One of the locomotives took over at one load, last week, about fifteen tons. The number of passengers that have passed over the road for the last two weeks, must have been very great. Who can fail to see the advantages to the whole state, of continuing this road from Schenectaday to Utica? And if a private company is willing and desirous to undertake it, we hope the legislature will not refuse them a liberal charter. —[Albany paper, April 11th.]

Mr. Hasler's Report on Weights and Measures seems to have attracted more attention in England, even than at home. We published some days ago a letter from a distinguished English Hydrographer, in relation to it. We have just seen the following additional evidence of the esteem in which the work is held in England. It may be well to add that some few copies of it are for sale at Messrs. Carvill's, in Broadway.

Extract of a letter from Mr. Wm. Vaughan, of London, dated 17th January, 1833, to a gentleman in Philadelphia.

"I enclose a copy of a letter from my friend, Mr. Francis Bailey, one of the most active members of the Astronomical Society of London, requesting the purchase of a number of copies of our friend Mr. Hassler's Report to Congress, on Weights and Measures.

"Extract from Mr. Francis Bailey's letter to W. Vaughan, dated London. 16th January.—'I have just seen a very valuable pamphlet which you were good enough to forward from America to the Astronomical Society, written by Mr. Hassler, on the Comparison of Weights and Measures. I have read it more than once, and am sorry that we are not likely to have more copies of it circulated in this country, than appear to have been sent over; for I find it is an official document, and therefore probably not for sale.

'Should you be able to procure me any reasonable number of copies, I shall be most happy to defray cost and expense, and should at the same time consider myself much obliged, as would the several parties to whom I should distribute the same.'

Shipwreck.—The ship Anacreon, Capt. White, from Liverpool, (sailed about the 24th Feb.) bound to City Point, with a cargo of Dry Goods, Salt, Iron, &c. went ashore on Hog Island, on Thursday night last. Capt. White had two vessels along side for the purpose of taking out the cargo—the vessel will be lost.——[Norfolk Herald.]

Centegenarian Pensioner.—There is in Washington a man by the name of *Andrew Wallace*, applying for an increase of pension, his present allowance from Congress amounting to only 26 cents per diem. He is 103 years of age, having been born in Inverness, Scotland, March 14, 1730, and arrived in America in 1752, and his present residence is in Chester county, Pa. He retains a fine intelligent countenance and full possession of his faculties, though his body continually shakes from paralysis. He was a soldier at the battle of Culloden, Scotland, on the side of the Stuarts. He was after his arrival in this country, appointed an orderly sergeant, above which post he never rose, and fought both in that war, and in several battles of the revolution. He was engaged in the battle of the Iron Hills, under Col. Wayne, and the battle of Brandywine, where he aided in bearing Gen. Lafayette off the field when wounded. He was in the Mohawk war in 1785, and in the Indian war of 1791, and was in the terrible slaughter, called St. Clair's defeat, in which he was wounded in the right arm by a ball. His arm was so injured that it has never since been straight. He nevertheless remained in the army and was in the battle fought by Wayne with the Indians in 1794. He afterwards served five years in the 3d U. S. Sub. Legion, under Capt. Pike, the father of the late Gen. Pike. When the Legion was dissolved, he fell into the 2d Regiment of Capt. Schuyler's company, and was at last marched to New Orleans in 1812 in the regiment commanded by Col. Thomas Cushing, and was finally discharged in 1813, at the age of *eighty three*, by Gen. Wade Hampton, on account of disability. He is poor—has a wife and two children—the youngest about 15 years of age.

Movement of Troops.—It is rumored that eight companies of the U. S. Troops at Charleston, (S. C.) are to return immediately to Fortress Monroe, and that three of the Companies now stationed at the Fortress, are to be transferred to New London and one to New York.—[Norfolk Beacon.]

Three Companies U. S. Troops left the Arsenal at Augusta, on the 28th ult. for Fort Mitchell.

Appointment by the President.—Arthur Middleton, Jr. of South Carolina, to be Secretary of the Legation of the United States at Madrid, in the place of Charles S. Walsh, removed.

Philadelphia, April 9.—The good ship Walter now below at this port, sailed from Baltimore on the 1st of May last—floated off to Liverpool—discharged her cargo—took in another, and proceeded to Canton, (China) unloaded and loaded again,—and then bustled back to Philadelphia, in the short period of *eleven months and seven days!* If any sister craft can outjump the Walter—whether in the port of the empire city, or in any of the harbors along shore, even to the regions of Cape Cod, and parts adjacent, it would be well to have it known.

We may add, in passing, that the Walter is the same ship which, some two or three years ago, made the passage from Liverpool to New York, in fifteen days, only one days excess over a fortnight, between the Mersey and the Hudson!—[Phil. Gaz.]

A lad was accidentally killed at Cambridgeport on Sunday afternoon, while playing with other boys on the gravel cars of the Lowell Railroad. One of his companions upset one of the cars, and threw him on the ground with so much force, as to cause almost instant death.

Power Wheel Grindstones.—Several melancholy accidents have recently occurred by reason of the separation of large grindstones, while revolving rapidly by means of powerful machinery. In Oxford, in this State, a man was killed instantly by one of these dangerous machines. It is stated, that the stone weighed nearly two tons, that it was six feet in diameter; and was, at the time of the accident, making 300 revolutions in a minute. Every one acquainted with centrifugal forces, will perceive the immense tendency of the parts to separate in such a case. The centrifugal force of bodies, is the tendency of their particles to fly off from the circle of the revolving bodies in tangents, or straight lines touching their outward circles. The tendency to fly off is, in a degree, proportioned to their velocity. A stone of 6 feet diameter would give a circumference of nearly 18 feet. Such a stone, revolving at the rate of 300 tines in a minute, would cause the particles on the outer surface to move with the enormous velocity of 5400 feet, or more than a mile in a minute.

The tendency therefore of every particle of matter of which the circumference of such a stone was composed, to fly off, would be at the rate of more than a mile in a minute. As the particles of the stone were situated towards its centre, the tendency to fly off in tangents, would of course be diminished, but they would still have more or less tendency from the centre. Hence is the great danger: and if there is any flaw in the stone, it will sooner or later burst asunder with tremendous violence. The person who lately suffered in Oxford, was in the act of grinding a scythe. One fragment of the stone, weighing about 800 pounds, flew upward, killed the man, and broke through the floor over his head, and lodged in the second story. The man was mangled in a shocking manner. Such instruments are too dangerous for common use.—[Boston Centinel.]

Sailing of the Second Whale Ship.—The Siroc, the second ship fitted out by the Poughkeepsie Whaling Co. sailed from this place early yesterday morning with a fine northerly breeze, on her intended voyage. The Siroc is a fine ship of 370 tons burthen, and is fitted for the Brazil Banks, in pursuit of the Black Whale. May prosperous gales and good luck attend her.—[Poughkeepsie Journal.]

Appointment by the President.—T. A. Howard, of Indiana, to be attorney of the U. States for the District of Indiana, in the place of Samuel Judah, removed.

POETRY.

Drinking Song of the Men of Basle.—[Close by the city of Basle is the field of St. James, where, in the year 1444, a sanguinary battle was fought between 1600 Swiss and 30,000 French! It lasted ten hours, the French being led by the Dauphin, afterwards Louis XI. The Swiss were not so much vanquished as they were tired with fighting, and exhausted by the number of their adversaries. Out of the 1600 only 16 survived, who brought the news of the battle to Basle. The French lost 6000 men. On this spot grows a red wine which is called, from this memorable circumstance, "the blood of the Swiss."]

Drink! drink!—the red, red wine
That in the goblet glows,
Is hallow'd by the blood that stained
The ground whereon it grows!

Drink! drink!—there's health and joy
In its foam to the free and brave;
But 'twould blister up like the elk-king's cup,
The pale lip of the slave!

Drink! drink! and as your hearts
Are warmed by its ruddy tide,
Swear to live as your Fathers lived,
Or die as your Fathers died!

[Lays and Legends of the Rhine.

[For the New-York American.]

DEPENDENCE.

How good and pleasant 'tis to be
Subjected to another's whim!
To eat and drink, to hear and see,
And breathe, as pleaseth him!

To tread the daily mill horse round
Of anxious still-recurring care;
To labor, ass-like, burthen bound,
Receiving asses' fare.

To stop and go, to rest and run
Obedient to a master hand;
To sleep and wake, as doth the sun,
Controlled by fixed command.

To waste, in base earth-tending toil,
The vigor of immortal mind,
And slave-like to the sordid soil
The lofty soul to bind.

From forth her chambers in the brain
To summon Fancy, fair and free,—
Then yield her up, with all her train,
To stern Necessity.

To quell, at want's unceasing call,
Each glorious impulse of the heart,
And, for the means of life, bid all
The *life* of life depart!

J. C. S.

STANZAS.

"Born in a world where flowers of fairest hue
First fade away;
Herself a rose, she lived, as roses do,
But for a day."

And thus, belov'd and cherish'd one, didst thou,
In thy young years, and thy bright visioned dreams,
Fade from this earth of flowers and moonlight streams,
As stars fade from the sky, when morning's brow
O'er all the world in dewy glory gleams.
Yes! in thy happiest years, when thou didst cling
With all of nature's fondness to this earth,
Thy sinless spirit reared its undimm'd wing,
And sought the home of its immortal birth.

And was it strange that many tears were shed,
When lowly bending o'er thy couch of death,
We saw thee yield serenely up thy breath,
And felt the withering knowledge thou wert dead.
Thou wert too spiritual long to remain
Amid the darkness of this shadow'd earth;
Thy spirit loved a loftier, holier strain,
Than that which echoed in the bowers of mirth;
Then not in vain were all our tears;—we felt
Thou wert far happier in thy quiet grave,
Than if before earth's shrine thou fondly knelt,
And yielded up thy heart its fetter'd slave.

The morning smiles; and yet thy gladsome voice
Comes not to bid us welcome that lov'd hour,
When Nature's minstrels gratefully rejoice,
And tune their harps within their leafy bower,
And when the sunlight gleams upon the brightened earth,
And all is beautiful beneath the sky,
We miss the brightness of thy gladdening eye;
And dark to us is earth's most sunny hour,
And tears are shed within the lonely bower,
Where thou didst wreathe the spell of melody and mirth.

And when the twilight hour is softening o'er
The faded glory of the sunset sky,
Its soft and shadowy spirit doth restore
Thy starry image to the dreamy eye;
And in the depths of memory are stirr'd,
The thoughts that there in broken visions lie;
And in the ear a mournful song is heard,
Lamenting that the loved so early die;
That over all that's beautiful and young,
Too oft a withering destiny is flung.

Yes! thus it is with earth;—but oh! my soul,
There is a hope that Heaven hath given to thee,
O'er which a darkened earth hath no control,
For it shall blossom in eternity;
When time hath passed and every heart is hushed,
That hope shall live, undying and uncrushed;
Through everlasting ages it shall shine,
With glory uncreated and divine.
Farewell! beloved one;—I would that thou
Hadst lived to heal a crushed and broken heart,
To scatter sunshine o'er a darkened brow,
And to a mournful eye bright smiles impart,—
But thou art gone!—and oh! I would not break
The spell that binds thee with eternity;
I would not that thy spirit should awake,
From its bright dream of immortality;
For thou art with the happy and the blest,
And I would not disturb thy glorious rest.

H. G. P.

MECHANICS' MAGAZINE,
AND
Register of Inventions and Improvements.

☞ To the Mechanics of the United States.—In this populous and enlightened country, almost every description of persons can obtain knowledge and amusement, connected with their peculiar pursuits, through the Medium of the Journal or Magazine especially devoted to their interests. The *Theologian*, the *Farmer*, the *Philosopher*, the *Sportsman*, and even the *Plough-Boy*, has each his journal, where he can find a record of the passing events of the day, connected with his peculiar avocations, and recreation. Hitherto, the *Mechanics* (who form a large and most important portion of the community) have had no Journal to which they could turn, with the certainty of finding that information they desire—no periodical, of which they could with confidence say,

"This is ours, and for us."

In the hope that the attempt to supply such a want, at a price so reasonable as to be within the reach of all, will meet with your active support, the subscriber proposes to publish on the first day of each month a "*Mechanics' Magazine.*" It will contain a well digested selection of the most useful and interesting articles from the London Mechanics' Magazine, London Register of Arts and Sciences, Repertory of Inventions, Library of Useful Knowledge, Journal of the Franklin Institute, and other works connected with the Arts and Manufactures published in this country and in Europe, accompanied with numerous well executed engravings. Its pages will be open for the communications of all, and especially for those of the Practical Artisan, to whose interests it will be more particularly devoted.

The "*Mechanics' Magazine*" will contain also a due portion of the occurrences of the month, Scientific and Literary, Reviews of Books, Anecdotes, Economical Receipts, Reports of the state of *Mechanics' Institutions*, and other Scientific Societies in this and other countries.

☞ In order that the work might be produced to the entire satisfaction of those for whom it is designed, and with credit to myself, I have secured the aid of a gentleman who was for several years engaged in publishing the *London Mechanics' Magazine*—a work of great merit and extension, and which Dr. Berkbeck, the President of the London Mechanics' Institution pronounced as the most valuable gift the hand of science ever offered to the Artizan

Each succeeding number will contain 64 pages, handsome ly printed, and attached in a neat cover. Six numbers will form a volume, for which an Index and Title-page will be supplied, and also a Portrait of some distinguished Mechanic, as a Frontispiece.

Terms, $3 per annum, *in advance.*

D. K. MINOR, 35 Wall street, Now-York.

☞ No. 3, for March, is ready for delivery.

WANTED,

☞ 200 MEN, and 100 HORSES and CARTS, to work on the Troy and Bennington M'Adam Turnpike. Apply to WALLACE & ANTHONY, 36 North
a6 3t Second street, Troy.

☞ GRACIE, PRIME & CO., offer for sale, at 22 Broad street—

4 cases Gum Arabic		
8 casks French Madder, ESFF		
2 do. do. do. SFF		
20 do. Danish Smalts, EFFF		
10 do. Saxon do. do.		Reduced Duty
500 bags Saltpetre		
203 do. Sicily Sumac		
44 bales 1st quality Italian Hemp		
240 do. 2d do. do. do.		
2 do. Gall Nuts; 20 tons Old Lead		
100 do. Trieste Rags, FF; 6 do. Saw Gin'd Sea Island do.		
20 do. each 209½ gross Velvet Bottle Corks		
6 boxes each 50 lbs. Tartaric Acid		
6 do. each 95 lbs. do. do.		
1 case 50 bottles Syrop de Vinaigre		
10 cases White Hermitage; 20 do. Cotie Rotie		
10 do. Dry St. Peray: 50 do. Bordeaux Grave		
20 do Chateau Grille; 31 packs each 100 Goat Skins		
4 packs do small do; 5 cases each 12 bottles Olives in Oil.		

ALSO,

DRY GOODS—English, German, and Italian, for sale by the package:—

Prints—25 cases new styles, light and dark grounds
Merinos—30 cases light and dark colors, 3-4 and 6-4 wide
Circassians—10 do. light and dark colors, assorted
Quiltings—4 do. White Diamond Quiltings
Dimities—6 do. Garment and Furniture Dimities
Satteens—10 do super white Satteens, ent. to deb.
Shirtings—1000 pieces 33 inch English brown do. do.
120 pieces 36 inch very fine English, for city trade
Lustrings—9 cases super jet black Italian Lustrings, and 36 and 38 inch Gentlemen's Cravats.

ALSO,

Chinese Colored Paper—for Labels. Perfumery, &c.
5 cases each 1600 Sheets Colored Paper

2	do	do	do	do	superfine
2	do	do	do fig.	do	do
3	do	do	do plain Gold	do	
2	do	do	do plain Silver	do	
2	do	do	do Silver	do	with red figures
2	do	do	do Gold	do	do
2	do	do	do Red	do	Gold do
2	do	do	do White	do	Silver do

For sale by
A20 GRACIE, PRIME & CO. 22 Broad street.

☞ TOWNSEND & DURFEE, of Palmyra, *Manufacturers of Railroad Rope*, having removed their establishment to Hudson, under the name of *Durfee & May*, offer to supply Rope of any required length (without splice) for inclined planes of Railroads at the shortest notice, and deliver them in any of the principal cities in the United States. As to the quality of Rope, the public are referred to J. B. Jervis, Eng. M. & H. R. R. Co., Albany; or James Archibald, Engineer Hudson and Delaware Canal and Railroad Company, Carbondale, Luzerne county, Pennsylvania.

Hudson, Columbia county, New-York, January 29, 1833. F31 tf

PAPER.

☞ The Subscribers, Agents for the Saugerties Paper Manufacturing Company, have constantly on hand an extensive assortment of Royal, Medium, and Imperial Printing Paper, all made from first quality Leghorn and Trieste Rags. Al contracts made after this date, will be furnished with 480 per-l fect sheets to the ream; and all sales amounting to over $100, of Medium, or Royal, out of that part of the stock which includes cassia quires, the purchasers will be allowed an extra quire of perfect paper to each double ream, with additional allowance to the publishers and the trade, who buy largely. The terms will be liberal. Apply to

J31 GRACIE, PRIME & CO. 22 Broad street.

PATENT RAILROAD, SHIP AND BOAT SPIKES.

☞ The Troy Iron and Nail Factory keep constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years successful operation and now almost universal use in the United States (as well as England, where the subscriber obtained a Patent,) are found superior to any ever offered in market.

Railroad Companies may be supplied with Spikes having countersink heads suitable to the holes in iron rails, to any amount and on short notice. Almost all the Railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

☞ All orders directed to the Agent, Troy, N. Y., will be punctually attended to.

HENRY BURDEN, Agent.

Troy, N. Y. July, 1831.

☞ Spikes are kept for sale, at factory prices, by I. & J. Townsend, Albany, and the principal Iron Merchants in Albany and Troy; J. I. Brower, 322 Water street, New-York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

P. S.—Railroad Companies would do well to forward their orders as early as practical, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand for his Spikes.

J23 1am H. BURDEN.

SURVEYORS' INSTRUMENTS.

☞ Compasses of various sizes and of superior quality, warranted.

Leveling Instruments, large and small sizes, with high magnifying powers with glasses made by Troughton, together with a large assortment of Engineering Instruments, manufactured and sold by E. & G. W. BLUNT, 154 Water street,
J31 6t corner of Maidenlane.

ENGINEERING AND SURVEYING INSTRUMENTS.

☞ The subscriber manufactures all kinds of Instruments in his profession, warranted equal, if not superior, in principles of construction and workmanship to any imported or manufactured in the United States; several of which are entirely *new*: among which are an Improved Compass, with a Telescope attached, by which angles can be taken with or without the use of the needle, with perfect accuracy—also, a Railroad Goniometer, with two Telescopes—and a Levelling Instrument, with a Goniometer attached, particularly adapted to Railroad purposes.

WM. J. YOUNG,
Mathematical Instrument Maker, No. 9 Dock street,
Philadelphia.

The following recommendations are respectfully submitted to Engineers, Surveyors, and others interested.

Baltimore, 1832.

In reply to thy inquiries respecting the instruments manufactured by thee, now in use on the Baltimore and Ohio Railroad, I cheerfully furnish thee with the following information. The whole number of Levels now in possession of the department of construction of thy make is seven. The whole number of the "Improved Compass" is eight. These are all exclusive of the number in the service of the Engineer and Graduation Department.

Both Levels and Compasses are in good repair. They have in fact needed but little repairs, except from accidents to which all instruments of the kind are liable

I have found that thy patterns for the levels and compasses have been preferred by my assistants generally, to any others in use, and the Improved Compass is superior to any other description of Goniometer that we have yet tried in laying the rails on this Road.

This instrument, more recently improved with a reversing telescope, in place of the vane sights, leaves the engineer scarcely any thing to desire in the formation or convenience of the Compass. It is indeed the most completely adapted to lateral angles of any simple and cheap instrument that I have yet seen, and I cannot but believe it will be preferred to all others now in use for laying of rails—and in fact, when known, I think it will be as highly appreciated for common surveying.

Respectfully thy friend,
JAMES P. STABLER, Superintendant of Construction of Baltimore and Ohio Railroad.

Philadelphia, February, 1832.

Having for the last two years made constant use of Mr. Young's "Patent Improved Compass," I can safely say I believe it to be much superior to any other instrument of the kind, now in use, and as such most cheerfully recommend it to Engineers and Surveyors. E. H. GILL, Civil Engineer.

Germantown, February, 1832.

For a year past I have used instruments made by Mr. W. J. Young, of Philadelphia, in which he has combined the properties of a Theodolite with the common Level.

I consider these Instruments admirably calculated for laying out Railroads, and can recommend them to the notice of Engineers as preferable to any others for that purpose.

HENRY R. CAMPBELL, Eng. Philad.,
ml 1y Germant. and Norris. Railroad

POPULATION OF THE UNITED STATES.

FROM A CORRESPONDENT OF THE NATIONAL INTELLIGENCER.

		North of Potomac and Ohio.		South of Potomac and Ohio.	
1790	White	2,155,835		1,016,639	
	Slaves	147,293	186,344	556,604	571,019
	Free colored	39,051		20,415	
	Total,	2,342,179		1,587,648	
1800	White	2,877,643		1,426,846	
	Slaves	150,978	226,771	742,063	774,667
	Free colored	75,793		32,604	
	Total,	3,104,414		2,201,513	
1810	White	3,977,023		1,884,981	
	Slaves	151,595	279,995	1,039,709	1,097,815
	Free colored	128,400		58,046	
	Total,	4,257,018		2,982,796	
1820	White	5,436,737		2,429,832	
	Slaves	138,817	295,301	1,399,221	1,476,261
	Free colored	156,484		77,040	
	Total,	5,732,038		3,906,093	
1830	White	7,349,334		3,188,044	
	Slaves	134,945	341,836	1,874,098	1,986,806
	Free colored	206,891		112,708	
	Total,	7,691,170		5,174,850	

VIRGINIA.

		White.	Slaves.	Free colored
1790	East of the Mountains,	507,885	291,273	12,703
1830	do. do.	375,940	416,259	40,708
1790	West of the Mountains,	34,230	2,154	63
1830	do. do.	318,505	53,465	6,323

SOUTH CAROLINA.

	White.	Slaves.	Free colored.
1790	140,178	107,094	1,801
1830	257,878	315,665	7,915

PASSENGERS—

In the packet ship George Washington, from Liverpool—Mr and Mrs G A Brown, of Manchester; Thos Sands, Thos B Sands, of Liverpool; G J Goodhue, of York, U C; William Ritchie, H Chapman, Wm Smith, Jas Connell, of Montreal; R F Maitland, R P Ross, D Bellhouse, of Quebec; Thos Winn, of Philada; H Abbotson, of Sheffield; E J Coates, of Boston; S C Lister, of Bradford, Eng; Wm Brooks, of Manchester; Chas Clegg, of do; B H Jones, of Liverpool; Rev R Calvert, of Keswick, Eng; S B Hargroves, of Leeds; Mr and Mrs Booth, of Huddersfield, Eng; John A Stevenson, E Cotton, of Staffordshire; Geo Cripps, J H Reed, W C Maitland, of New York, and 30 in the steerage.

In the ship Ontario, from London—R Johnson, lady and family, of Jamaica; D Fox, of Belleville, N J.; Henry Todd, and Geo C Thorburn, of New York; Master H De Koven, of Middletown, Ct.; John Poore, W Walker, Miss Nicholson, Miss Rolfe, and George Miller, of London, and 144 in the steerage.

MARRIAGES.

On the 11th inst. at Friends Meeting House in Hester street, NEELY LOCKWOOD, to ELIZA BOWNE, daughter of the late Richard M. Bowne, all of this city.

On Wednesday, 10th inst. by the Rev. Wm. Quarter, Mr. EDWARD CRONLY, to Miss MARIA, second daughter of Mr. Andrew Fallen.

Last evening, 16th instant, by the Rev. Dr. De Witt, PETER R. BRINCKERHOFF, to MARIA JEANETTE, daughter of the late John T. Lawrence, Esq., all of this city.

DEATHS.

On Tuesday evening, MARY, wife of Samuel D. Wilkins, of Gwanas, L. I. and daughter of Nehemiah Denton, Esq.

Monday morning, April 15th, Mrs. SARAH TAYLOR, aged 84 years and 9 months.

This morning, April 16, after a lingering illness, Mrs. BRIDGET BANKS, wife of Henry Banks, in the 42d year of her age.

On Thursday, the 11th inst, MRS. JANE POST, in the 86th year of her age, widow of the late Jacob Post, of Yonkers, West Chester County.

This morning, after a long and painful illness, which he bore with christian fortitude, WILLIAM ANDERSON, aged 78 years.

This morning, April 17, CHARLOTTE JANE, wife of JOHN R. KNOX, M. D. and daughter of the late John Bullus, Esq.

On Tuesday afternoon, 16th instant, after a lingering sickness, which he endured with great christian fortitude, Mr. JACOB JUSTISON, in the 31st year of his age.

Of Consumption, on Sunday afternoon, the 14th instant, in the 40th year of her age, Mrs. ELIZA, wife of James Kearley.

On the 5th of April, in the village of Jamaica, Queen's County, WM. PUNTINE, aged 80 years.

At Charleston, S C. CHARLES WINTHROP, of the house of F. & C. Winthrop, aged 34 years.

REPORT OF DEATHS—WEEK ENDING SATURDAY, APRIL 13.

Between the ages of

90 and 100—	1	50 and 60—	9	10 and 20—	3
80 and 90—	1	40 and 50—10		5 and 10—	7
70 and 80—	1	30 and 40—10		2 and 5—	3
60 and 70—	3	20 and 30—19		1 and 2—12	

Of and under one year, 16—Total, 95.

Diseases.

Apoplexy	5	Inflammation of brain	2
Burned or scalded	1	Inflammation of chest	2
Childbed	1	Inflammation of liver	1
Consumption	28	Intemperance	1
Convulsions	5	Marasmus	2
Dropsy	3	Old age	3
Dropsy in the head	6	Peripneumony	6
Dyspepsia	1	Pneumouia typhodes	1
Fever, bilious	1	Small pox	1
Fever, remittent	1	Sore throat	1
Fever, typhus	2	Sprue	1
Hæmorrhage	1	Stillborn	5
Hæmoptysis	1	Teething	2
Hives or croup	7	Tumor	1
Jaundice	1	Unknown	1
Inflammation of bowels	4	Whooping cough	1

ABM. D. STEPHENS, City Inspector.

TO ENGINEERS.

☞ Any person who can recommend an Engineer of the best school, to survey, locate and construct a Railroad, will please address a line to the Editor of the Railroad Journal, 35 Wall street.

A20 3t

NEW-YORK PRICES CURRENT:

Corrected from the "New-York Shipping and Commercial List"—Wednesday, April 17th 1833.

ASHES—				
Pot, 1st sort 1832	100 lbs	4 30	a	—
Pearl	do	4 56	a	4 60
BEES WAX—				
White	lb	32	a	36
Yellow	do	19	a	20
BREAD—				
Navy	lb	—	a	2½
Pilot	do	—	a	4½
Crackers	do	5½	a	6
BRISTLES—				
Russia, first sort	lb	60	a	—
Do. common	do	20	a	36
American	do	15	a	44
CANDLES—				
Mould, tallow	lb	12	a	13
Dipped	do	10½	a	11½
Sperm	do	33	a	34
CLOVERSEED	lb	12	a	13½
COAL—				
Liverpool	chaldron	9 00	a	9 50
Scotch	do	7 50	a	8 00
Sidney & Bridgeport	do	—	a	10 00
Albion	do	—	a	9 00
Virginia	do	8 00	a	9 00
Anthracite	ton	6 00	a	7 00
COCOA—				
Caraccas	lb	16	a	—
Trinidad	do	—	a	7
St. Domingo	do	6	a	—
Para	do	—	a	6
COFFEE—				
Cuba	lb	10¾	a	12½
Brazil	do	12	a	13
Porto Rico	do	12½	a	13½
Laguira	do	11½	a	12½
St. Domingo	do	11½	a	11
Java	do	12½	a	14
Jamaica	do	11	a	12
COPPER—				
Sheathing	lb	23	a	—
Pig	do	—	a	17
Old	do	17	a	18
Bolt	do	24	a	—
CORDAGE—				
Foreign	lb	9½	a	11
American	cwt	10½	a	11
CORKS—				
Velvet	gross	40	a	50
Common	do	20	a	33
Phial	do	5	a	12
COTTON—				
New Orleans	lb	11	a	13½
Upland	do	10	a	13
Alabama	do	10	a	12
Tennessee	do	10	a	11
COTTON BAGGING—				
Hemp	yd	13	a	20
Flax	do	11	a	15
Do. American	do	19	a	20
DIAPERS—				
Russia, broad	piece	2 15	a	2 25
DUCK				
Russia, U. X.	oolt	17 50	a	18 00
Do. Bruisguins				
Do. Zotoff & Konop'ff		—	a	16 00
Do. 3d quality	do	15 50	a	—
Do. inferior	do	11 00	a	14 00
German, Half	do	11 00	a	—
Holland, A. A.	do	24 00	a	—
Ravens	do	7 00	a	8 50
Amer. Joy's, all flax, No. 1 a 3	do	14 00	a	10 50
Do. Phenix Mills, Paterson, flax, No. 1 a 3		16 00	a	12 00
Do. cotton, Paterson, No. 1 a 10	yd	26	a	38
DYE WOODS—				
Braziletto	ton	28 00	a	30 00
Camwood	do	80 00	a	82 50
Fustic, Cuba	do	25 00	a	27 00
Do. Tampico	do	22 00	a	23 00
Do. Maine	do	19 00	a	21 00
Logwood, Camp'hy	do	26 00	a	27 00
Do. St. Dom.	do	20 00	a	21 00
Do. Jamaica	do	17 00	a	18 00
Nicaragua, Bonaire	do	42 00	a	45 00
Do. Coro	do	45 00	a	50 00
Do. Hache	do	—	a	70 00
FEATHERS—				
Live, Foreign	lb	14	a	20
Do. American	do	38	a	40
FISH—				
Dry Cod	cwt	2 75	a	—
Scale	do	2 00	a	—
Pickled Cod	brl	4 25	a	—
Do. Salmon	do	12 50	a	13 50
Smoked do.	lb	—	a	—
Mackerel No. 1	brl	6 75	a	7 00
Do. No. 2	do	—	a	5 00
Do. No. 3	do	—	a	3 37½
Shad, Conn. Mess	do	8 25	a	9 50
Do. Buckaport, do.	do	—	a	6 00
Herrings	do	2 25	a	2 50
Do. Smoked	box	40	a	90
FLAX—				
Russia	lb	11½	a	—
American	do	8½	a	9
FLAXSEED—				
Clean	cask	—	a	—
Rough	do	—	a	11 50
FLOUR AND MEAL—				
New York supfine	brl	5 62½	a	—
Troy	do	5 62½	a	5 75
Western Canal	do	6 12½	a	6 25
Philadelphia	do	—	a	5 62½
Baltimore Howard st.	do	5 87½	a	6 00
Richmond City Mills	do	—	a	6 87½
Do. Country	do	—	a	5 62½
Alexandria & Georgetown	do	5 62½	a	6 00
Fredericksburg	do	5 56	a	5 62½
Petersburg	do	5 62½	a	5 75
Scratched and fine	do	5 25	a	—
Fine middlings	do	5 00	a	—
Rye Flour	brl	3 75	a	3 87½
Indian Meal	do	3 87½	a	4 00
Do.	hhd	—	a	17 00
FRUIT—				
Raisins, Malaga	cask	6 50	a	6 75
Do. bloom	box	1 65	a	1 87½
Do. muscatel	do	2 00	a	2 06
Do. bunch	do	2 06	a	2 28
Do. Smyrna	lb	3½	a	5
Currants, Zante	do	3½	a	5
Almonds, soft shell	do	11	a	12½
Do. shelled	do	—	a	20
Figs, Smyrna	do	3½	a	6½
Filberts	do	3	a	4
Prunes, Bordeaux	do	18	a	20
Tamarinds	do	3	a	4
GRAIN—				
Wheat, North riv	bshl	—	a	—
Do. Genesee	do	—	a	—
Do. Virginia	do	1 15	a	1 18
Do. N. Carolina	do	1 12	a	—
Rye, Northern	do	80	a	82
Corn, Yellow, North.	do	73	a	78
Do. White, L. I. & N. J.		—	a	—
Do. Southern	do	66	a	70
Barley, North river	do	56	a	60
Oats, South & North.	do	40	a	45
Peas, white dry	bshls	9 00	a	10 00
Do. black eyed	do	75	a	—
Beans	do	9 00	a	12 00
HEMP—				
Russia	ton	195 00	a	200 00
Manilla	do	2[illegible]0 00	a	—
Sisal	do	—	a	—
American dew-rot	do	130 00	a	130 00
Yarns, Kentucky	lb	—	a	—
HIDES—				
La Plata & R. Grande	lb	14½	a	14½
Brazil	do	11	a	12
Do. wet salted	do	7	a	—
Oronoco	do	12½	a	13
W. India & Southern	do	10	a	12
S. A. Horse	piece	1 15	a	1 35
HOPS—				
First sort, 1832	lb	25	a	33
Second sort, do	do	—	a	—
HORNS—				
Ox	100	5 00	a	20 00
INDIGO—				
Bengal	lb	94	a	1 20
Manilla	do	60	a	90
Caraccas	do	94	a	1 10
Guatemala	do	60	a	1 00
IRON—				
Pig, Engl. & Scotch	ton	37 50	a	45 00
Do. American	do	30 00	a	40 00
Bar, do.	do	72 50	a	75 00
Do. Russia, P. S. L.	do	—	a	97 50
Do. new Sable	do	82 50	a	85 00
Do. Swedes	do	82 50	a	87 50
Do English assorted	do	—	a	75 00
Sheet, English	cwt	6 75	a	7 50
Peru I. Co. flat & sq.	ton	—	a	—
Do. round	do	—	a	—
Hoop, American	cwt	6 00	a	6 25
Do. English	do	6 25	a	6 50
JUNIPER BERRIES		2	a	3
LEAD				
Pig	lb	5¾	a	—
Bar	do	5½	a	—
Sheet	do	6	a	—
Old	do	4⅝	a	4½
LEATHER—				
Sole, Oak tanned	lb	20	a	27
Do. Hemlock	do	17	a	20
Do. damaged	do	14	a	16
Upper, dressed	side	75	a	2 75
Do. undressed	do	1 00	a	2 50
LUMBER—				
Boards, N. R.	M ft	—	a	15 00
Do. East'n Pine	do	16 00	a	17 00
Do. Albany do	pce	16	a	17
Plank, Georgia do.	M ft	25 00	a	35 00
Staves, W. O. pipe	do	56 00	a	58 00
Do. do hhd	do	36 00	a	42 00
Do. do brl	do	28 00	a	30 00
Do. R. O. hhd	do	25 00	a	—
Heading W. O.	do	42 00	a	45 00
Hoops	do	25 00	a	—
Scantling, Pine	do	15 00	a	16 00
Do. Oak	do	20 00	a	25 00
Timber, Oak	sq. ft	20	a	25
Do. Geo. Yell. Pine	do	25	a	30
Shingles, Cypress	M ft	4 00	a	4 25
Do. Pine	bundle	—	a	—
MOLASSES—				
Martinique & Guad.	gall	27	a	30
English Islands	do	28	a	31
Havana & Matanzas	do	26	a	29
Trinidad de Cuba	do	30	a	31
New Orleans	do	31	a	32
NAILS—				
Cut, 4d to 40d	lb	—	a	6
Cut, 3d	do	6½	a	7½
Cut, 2d	do	8	a	8½
Wrought	do	10	a	16½
NAVAL STORES—				
Tar	brl	1 50	a	1 62½
Pitch	do	1 50	a	1 62½
Rosin	do	1 12½	a	1 75
Turpentine Wilm. soft		—	a	2 62½
Do. North Co.	do	—	a	2 25
Spirits Turpentine	gall	40	a	42
OILS—				
Florence 30 flasks	box	4 50	a	4 75
French 12 bottles	bskt	3 00	a	3 75
Olive	gallon	1 08	a	1 10
Linseed, American	do	96	a	98
Do. Eng. & Dutch	do	97½	a	1 00
Whale	do	24	a	25
Do. refined	do	—	a	—
Sperm, Summer	do	85	a	87½
Do. Winter	do	90	a	95
Liver, Straits	brl	15 00	a	15 50
Do. Shore & Bank	do	14 00	a	14 50
PROVISIONS—				
Beef, Mess	brl	8 75	a	9 50
Do. Prime	do	8 50	a	8 75
Do. Cargo	do	4 50	a	4 75
Butter, N. Y. Dairy	lb	16	a	20
Do. Shipping	do	12	a	14
Do. Philadelphia	do	11½	a	12
Hog's Lard	lb	7½	a	9
Pork, Mess	do	12 50	a	14 25
Do. Prime	do	10 75	a	11 25
Do. Cargo	do	9 00	a	9 50
Cheese, American	lb	6½	a	9
Hams, Virginia	do	9	a	10
Do. Northern	do	8½	a	10
RAGS—				
Foreign	do	2	a	8
Country	do	3	a	5
RICE	100 lb	2 75	a	3 25
SALT—				
Turk's Island	bshl	42	a	—
Isle of May	do	40	a	—
St. Ubes	do	40	a	—
Cadiz	do	—	a	40
Lisbon	do	40	a	—
Liverpool ground	do	33	a	—
Do. blown	do	—	a	—
Do. sack do.	sack	1 75	a	1 81
SALTPETRE—				
Refined	lb	8½	a	9
Crude E. I.	do	—	a	7
SHEETINGS—				
Russia, white	piece	10 50	a	11 25
Do. brown	do	8 75	a	9 00
SOAP—				
New-York, Brown	lb	5½	a	6½
Castile	do	11	a	12
SPELTER	lb	3	a	3½
SPICES—				
Cassia, in mats	lb	14	a	15
Cloves	do	25	a	26
Ginger, race	do	9	a	9½
Do. ground	do	6	a	11½
Nutmegs	do	85	a	1 25
Pepper	do	8½	a	8¾
Pimento, Jam.	do	8½	a	8½
SPIRITS—				
Brandy, Ot. D. & Co.	gal	1 62½	a	1 69
Do. Rochelle	do	1 50	a	1 62½
Do. Bordeaux	do	1 30	a	1 40
Rum, Jam. 4th proof	do	95	a	1 10
Do. St. Croix, 3d	do	90	a	1 00
Do. Wind. Isl. 3d	do	85	a	—
Do. N Orl'ns, 1st	do	40	a	45
Do. N. Eng. 1st	do	35	a	36
Gin: Holl'd, Meder Swan		1 19	a	—
Do. Hour Glass	do	—	a	1 15
Do. Pine Apple	do	—	a	1 19
Do. Imperial	do	1 12½	a	1 15
Do. Country	do	38	a	42
Whiskey, Rye	do	31	a	35
Cider Brandy	do	—	a	—
STEEL—				
German	lb	10½	a	12½
English	do	11	a	14
Trieste, in boxes	do	5	a	5½
American	do	5½	a	6
SUGARS—				
British Island	lb	7½	a	9
St. Croix	do	8	a	10
New Orleans	do	5½	a	7½
Havana, White	do	9	a	11½
Do. Brown	do	7½	a	8½
Do. Muscovado	do	7	a	7½
Porto Rico	do	7½	a	9
Brazil, White	do	8	a	8½
Do. Brown	do	7	a	7½
Manilla, Brown	do	7½	a	—
Lump	do	12	a	13
Loaf	do	14	a	17
SUMAC—				
Sicily	ton	75 00	a	80 00
Trieste	do	—	a	40 00
American	do	—	a	30 00
TEAS—				
Imperial	lb	65	a	1 00
Gunpowder	do	65	a	1 00
Hyson	do	60	a	88
Young Hyson	do	60	a	80
Hyson Skin	do	36	a	66
Souchong	do	26	a	40
Bohea	do	13	a	16
TIMOTH. SEED	tce	13 00	a	15 00
TOBACCO—				
Richmond & Petersb.	do	3½	a	6
North Carolina	do	3	a	4½
Kentucky	do	3½	a	6
Cuba	do	8	a	16
St Domingo	do	9	a	15
Manufactured, No. 1	do	10	a	12
Do. No. 2	do	7	a	—
Do. No. 3	do	6	a	7
Ladies' Twist	do	14	a	16
Cavendish	do	8	a	30
WINES—				
Madeira	gall	1 12½	a	2 25
Sherry	do	80	a	2 00
Canary, Cogswell's	do	95	a	1 37½
Teneriffe L. P.	do	70	a	1 00
Do. Cargo	do	60	a	65
Malaga, dry	do	40	a	45
Do. sweet	do	40	a	44
Claret	cask	14 00	a	22 00
Do. in bottles	doz	2 25	a	6 00
Port	gall	70	a	1 87½
Lisbon	do	80	a	1 25
Marseilles Madeira	do	35	a	45
Catalonia	do	30	a	44
WOOL—				
Merino, Am. fleece	lb	42	a	56
Do. pulled	do	40	a	45
Common	do	30	a	38
Pulled, spinning	do	40	a	42
Lambs, 1st quality	do	—	a	—
Do. 2d quality	do	26	a	38
Do. 3d quality	do	20	a	23